

THE ARCHITECTS' JOURNAL



JAN 3 1954

CLIP

★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to I one week, I to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

standard contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur

NEWS and COMMENT

Diary
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Astragal's Notes and Topics
Letters
Societies and Institutions

TECHNICAL SECTION

Information Sheets
Information Centre
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Prices
The Industry

PHYSICAL PLANNING SUPPLEMENT

CURRENT BUILDINGS HOUSING STATISTICS

Architectural Appointments
Wanted and Vacant

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Registered as a Newspaper.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society, 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians, 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain, 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association, 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association, 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council, 68, Portland Place, W.1.	Langham 8738
BAE	Board of Architectural Education, 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council, Lambeth Bridge House, S.E.1.	
BC	Building Centre, 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council, 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation, 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association, Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association, 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association, 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association, 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education, 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors, 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council, 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade, Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRDB	British Rubber Development Board, Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station, Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association, 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution, British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition, 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society, C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 5491
CAS	County Architects' Society, C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association, 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice, Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association, Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne, Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design, Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council, 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education, 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association, 13, Suffolk Street, S.W.1.	Whitehall 0540
DPT	Department of Overseas Trade, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
EJMA	English Joinery Manufacturers' Association (Incorporated), Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society, 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors, 67, Oxford Street, W.1.	Gerrard 0021
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organisation, Ltd., Melbourne House, Aldwych, W.C.2.	Temple Bar 4561
FBI	Federation of British Industries, 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission, 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries, 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District, Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders, 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders, 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England, 67, Oxford Street, W.1.	Gerrard 0021
GC	Gas Council, 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group, 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre, 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors, 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts, 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers, Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society, 32, Victoria Street, S.W.1.	Abbey 5215

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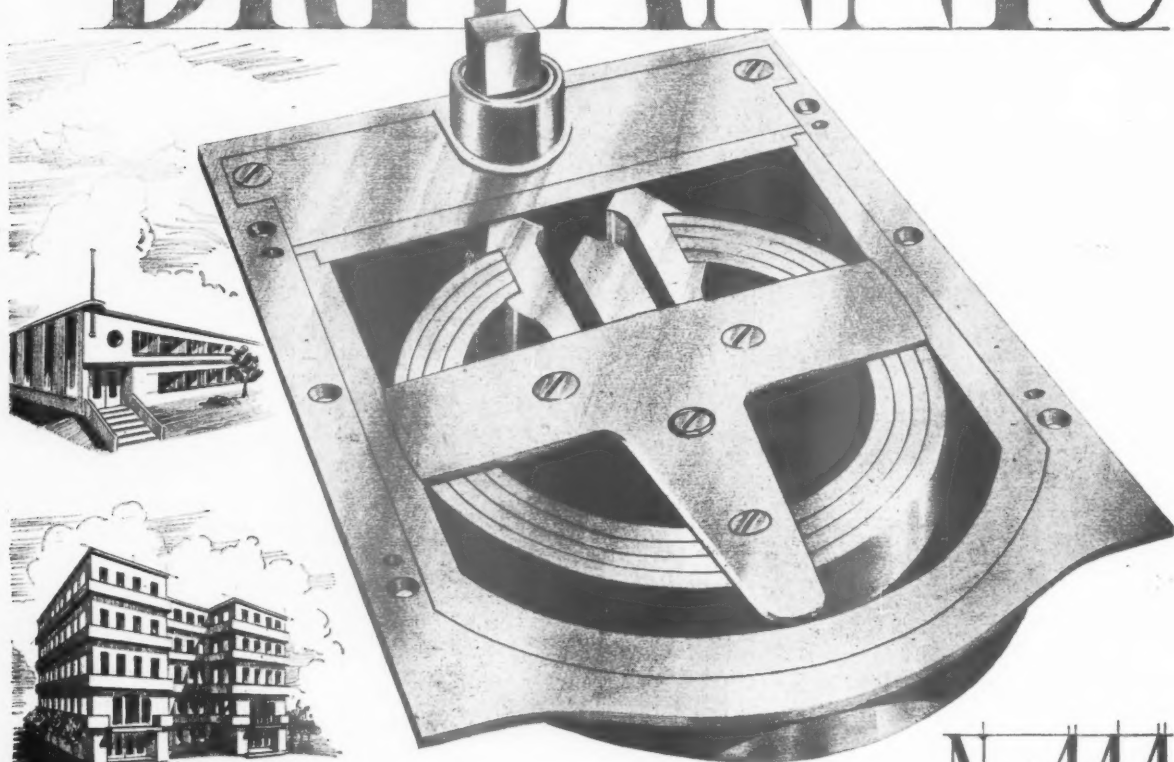
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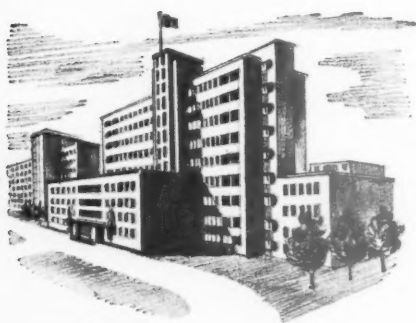


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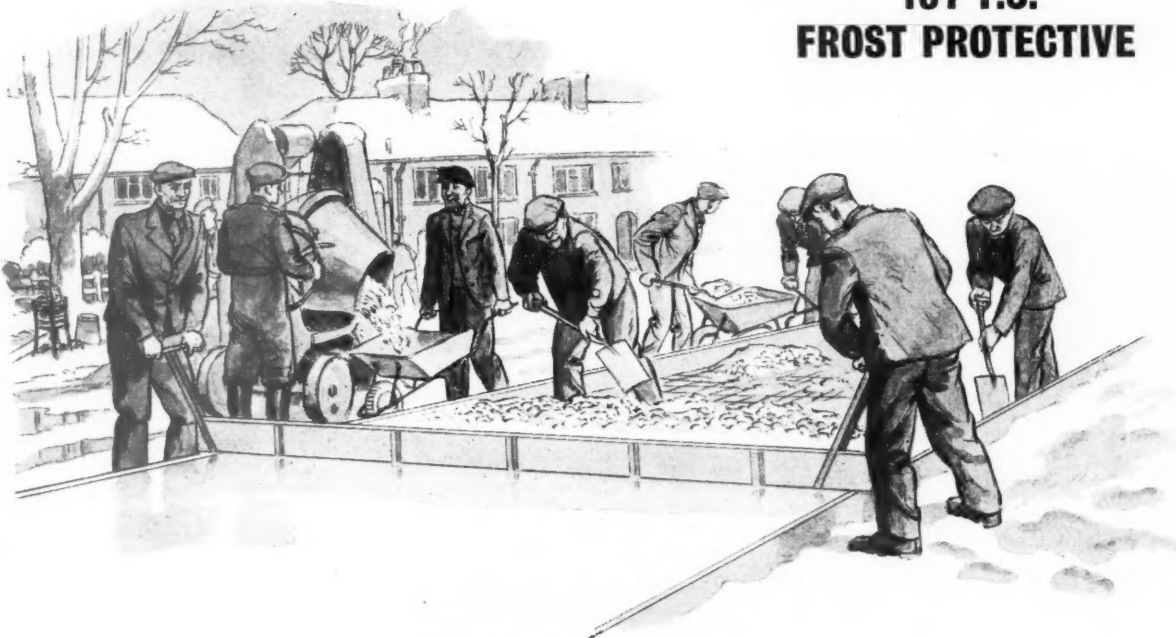
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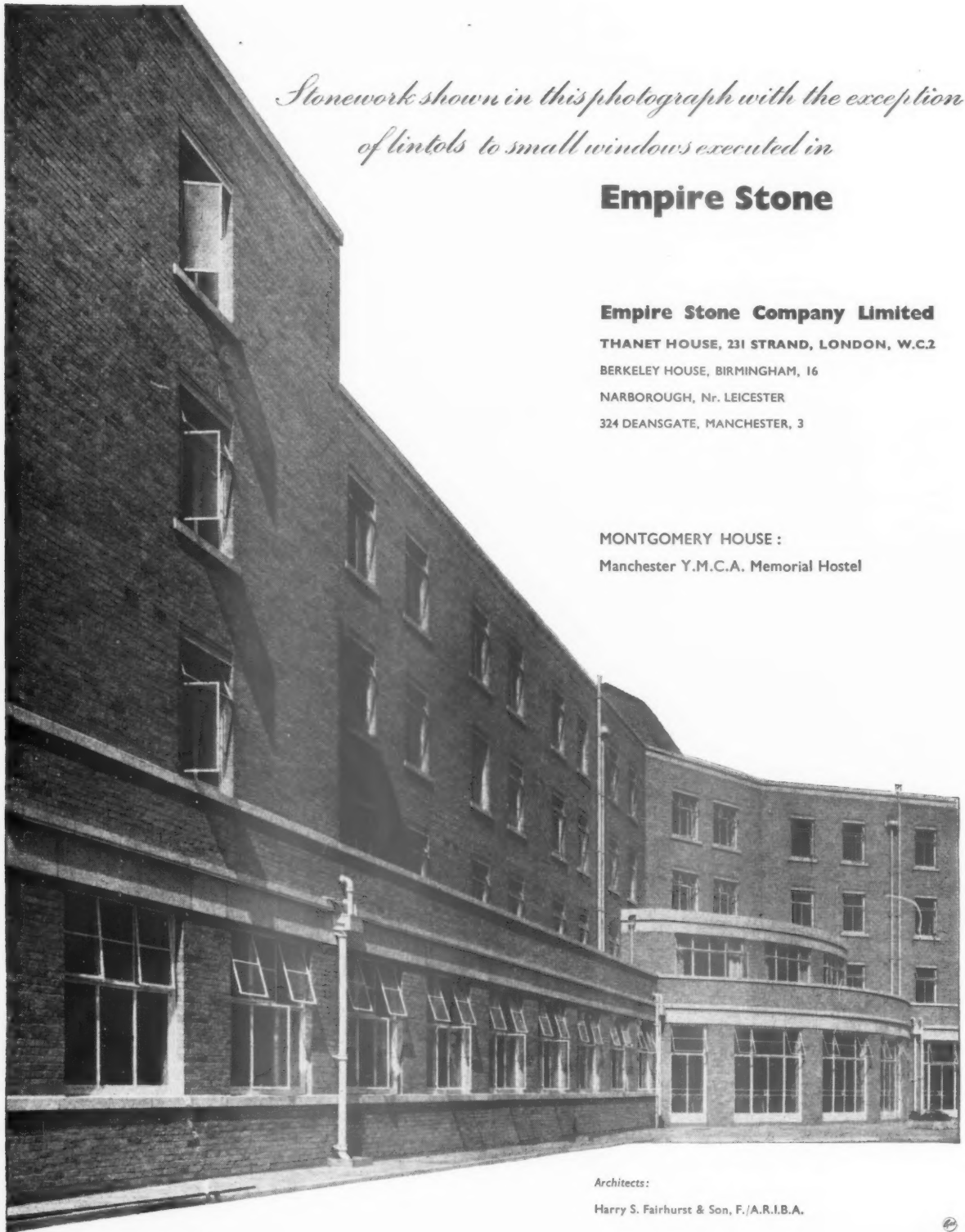
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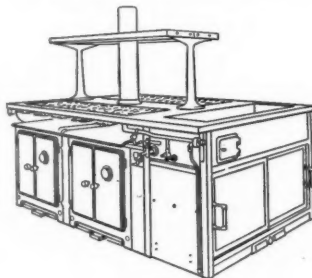
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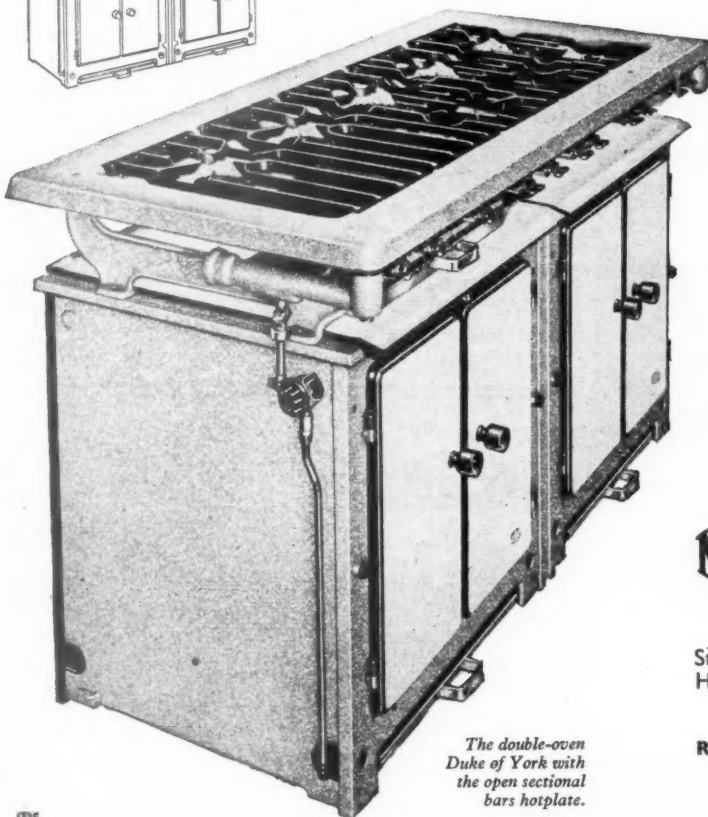
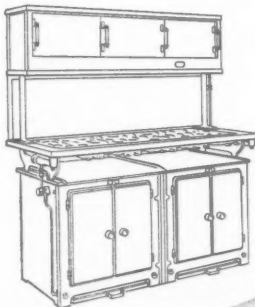
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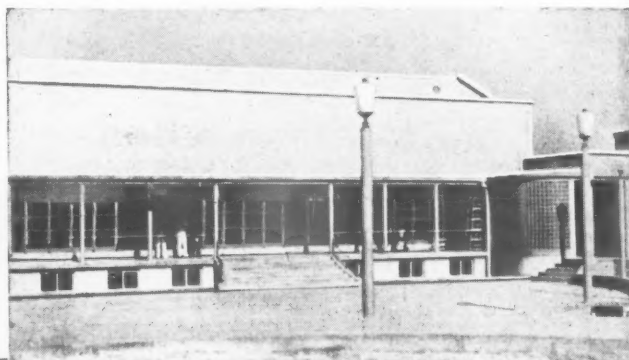
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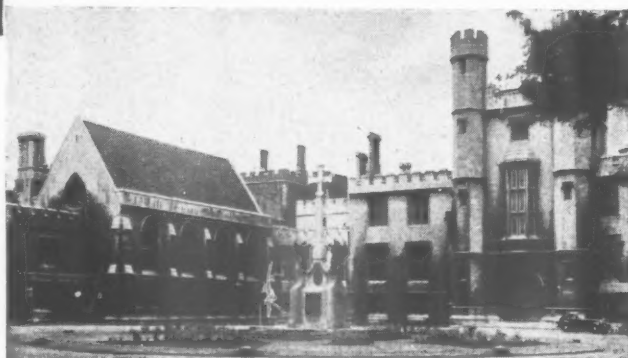
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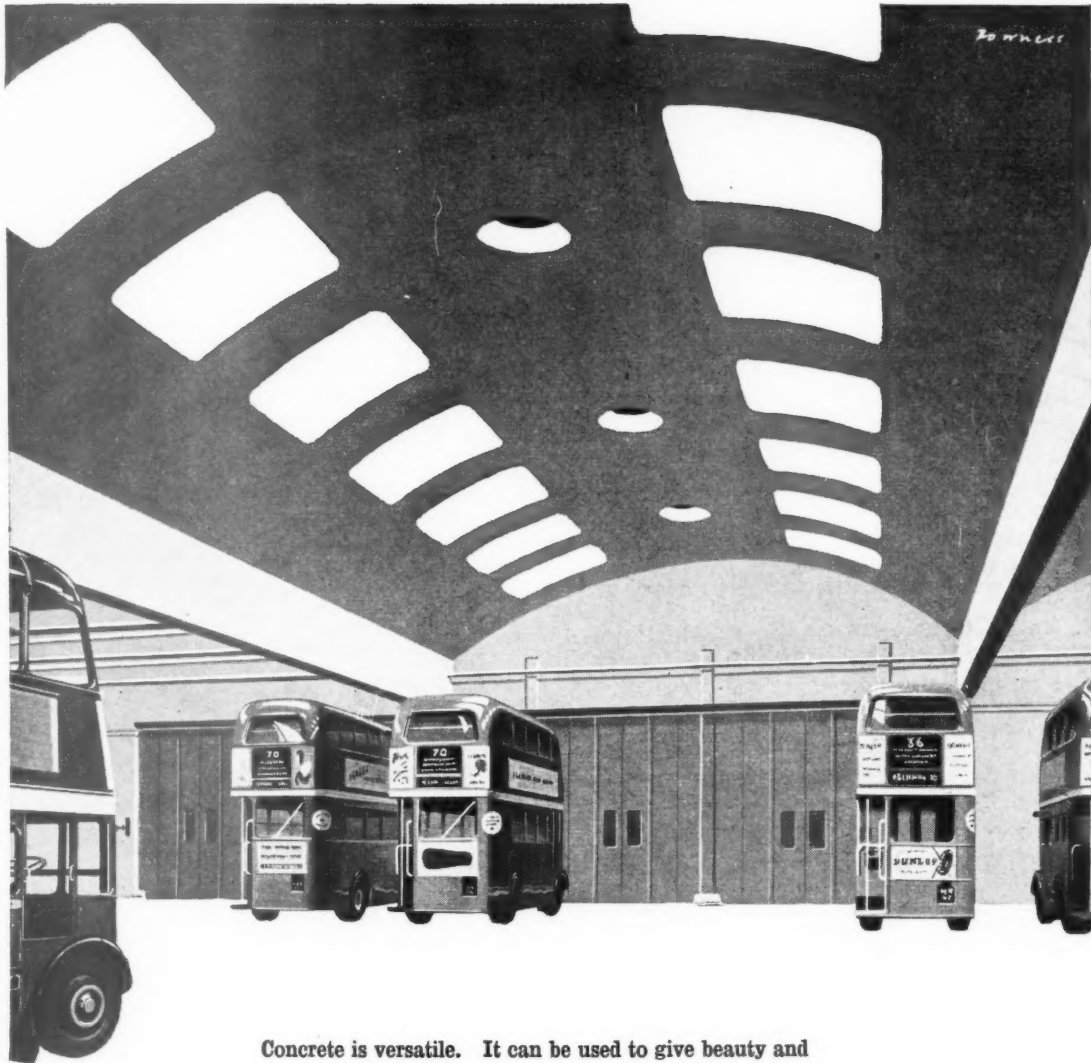
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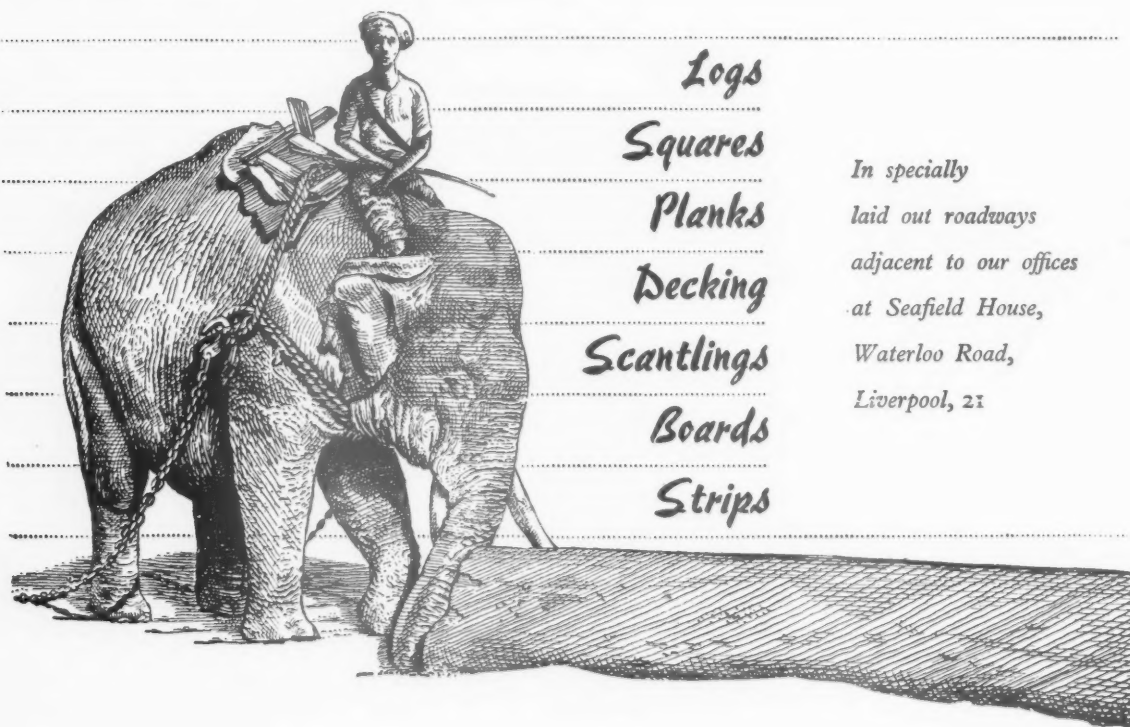
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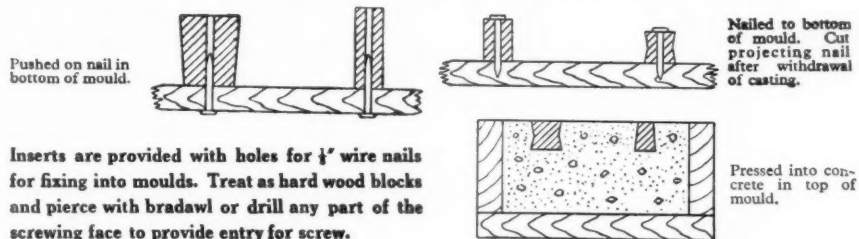
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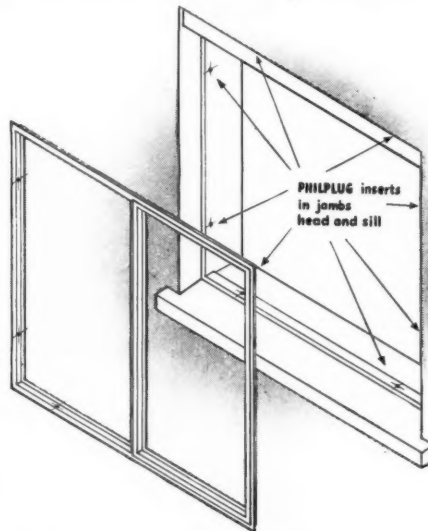
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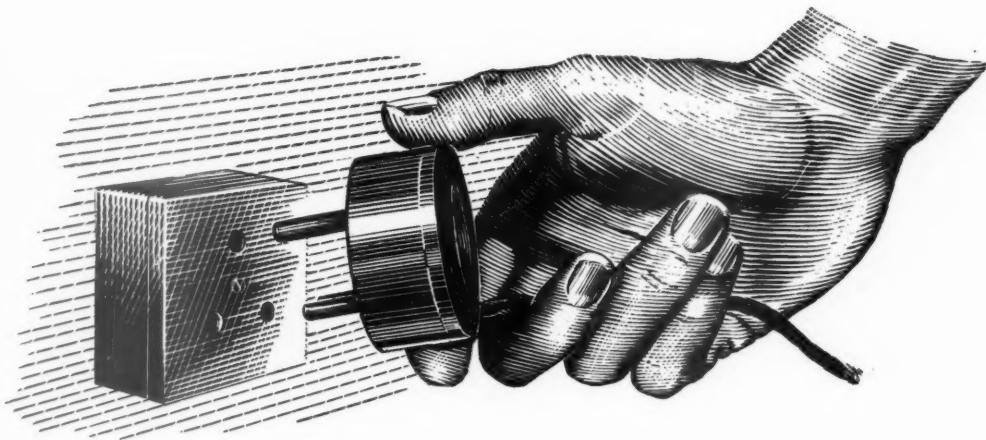
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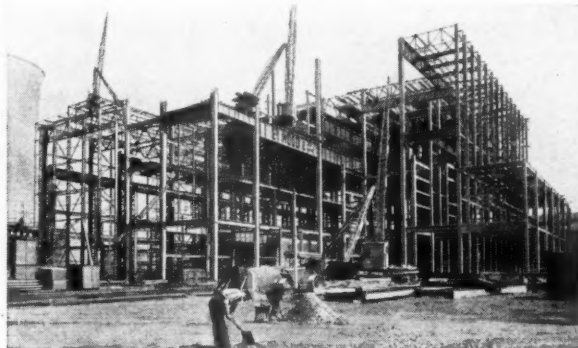


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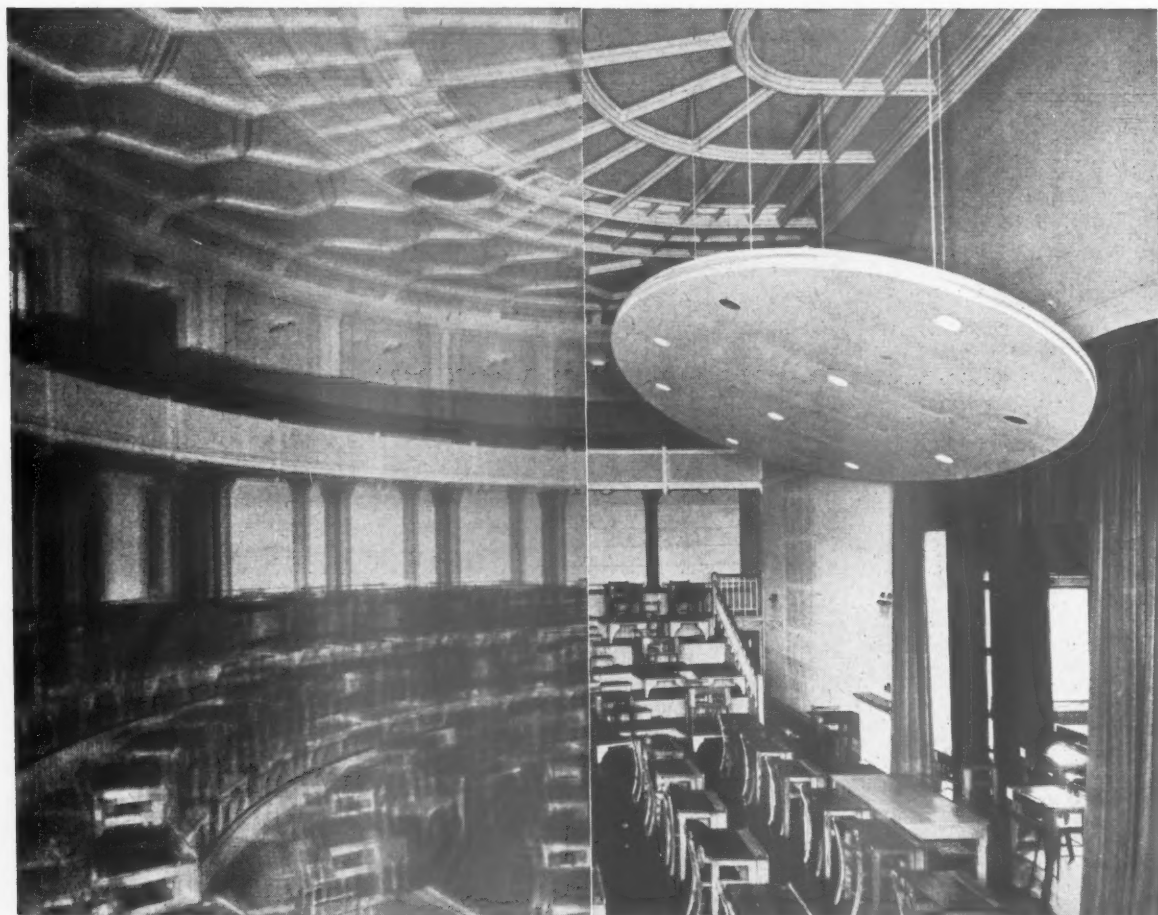
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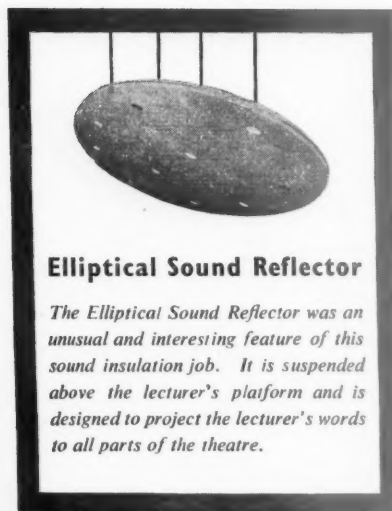
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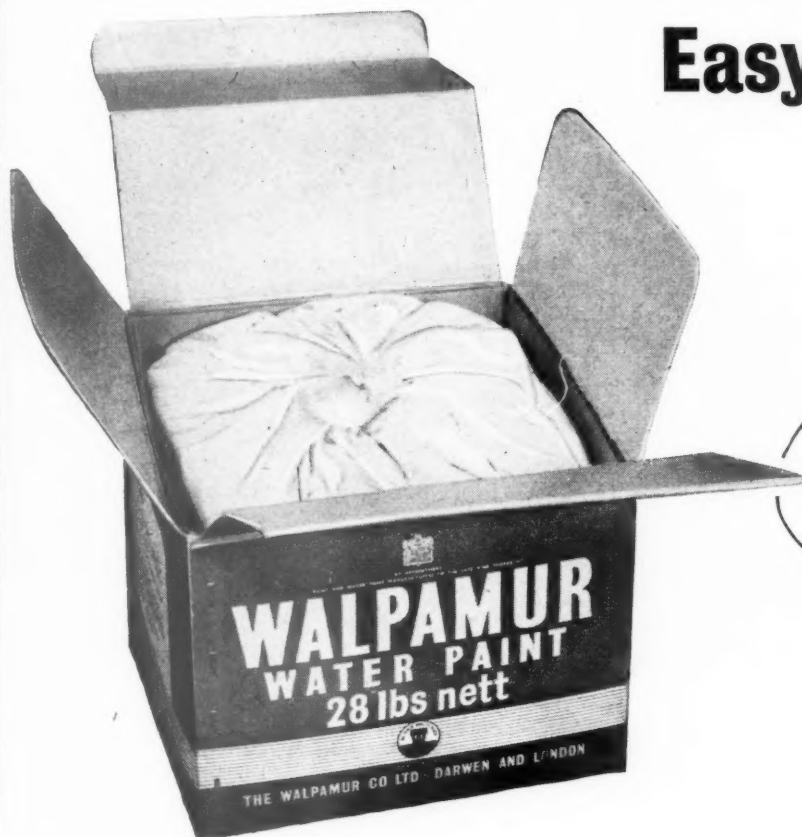
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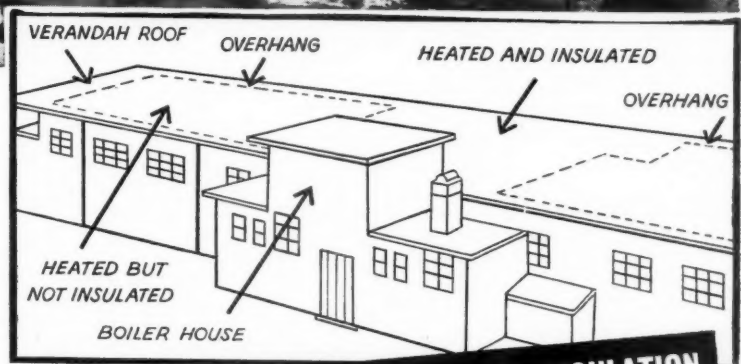
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Oswin House, Bradford. Photo by courtesy of Stroud, Riley & Co. Ltd.

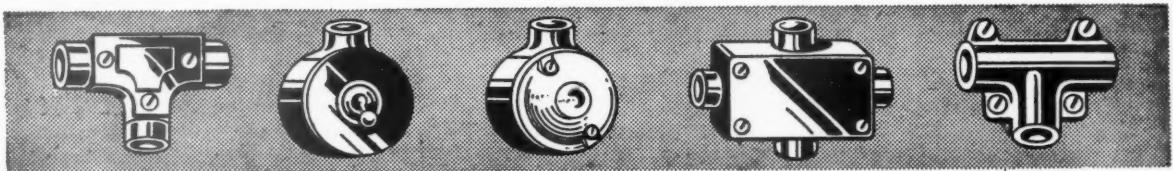
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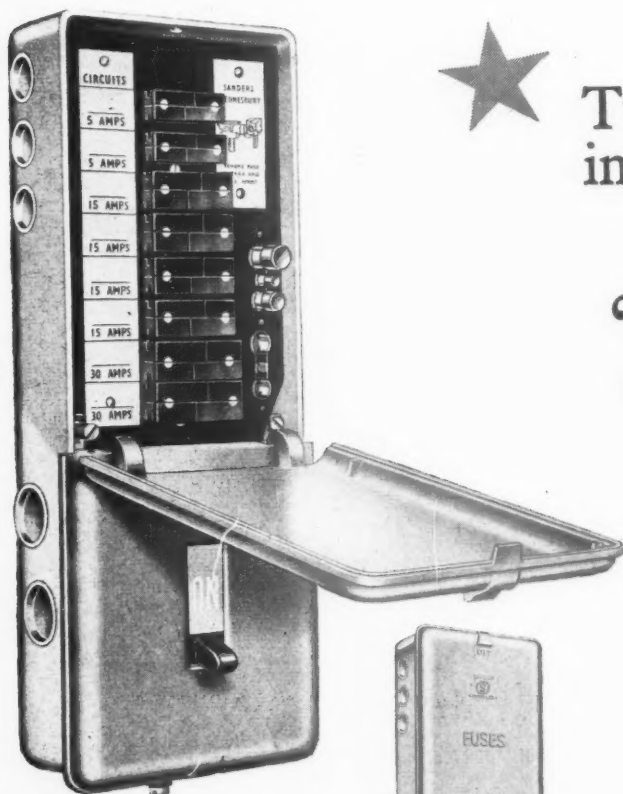
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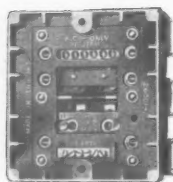
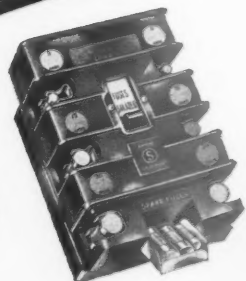
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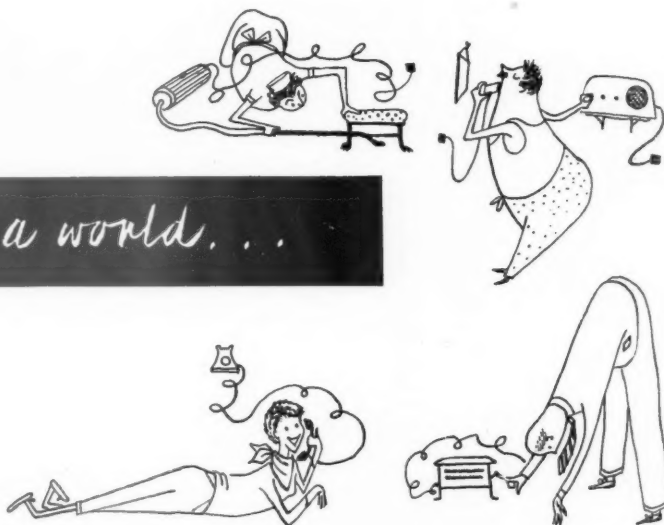
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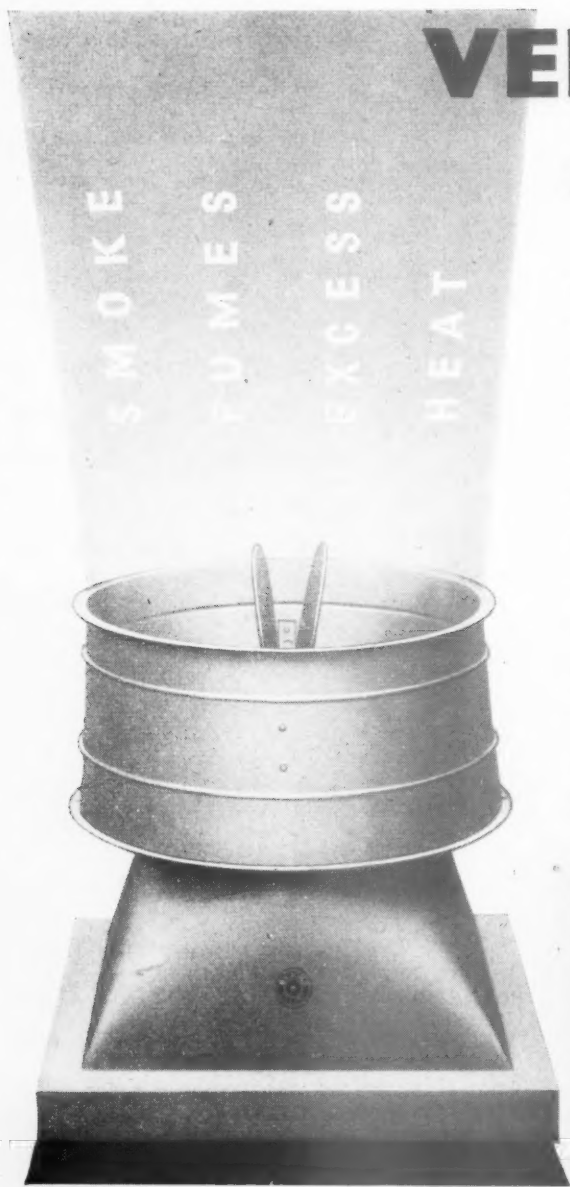
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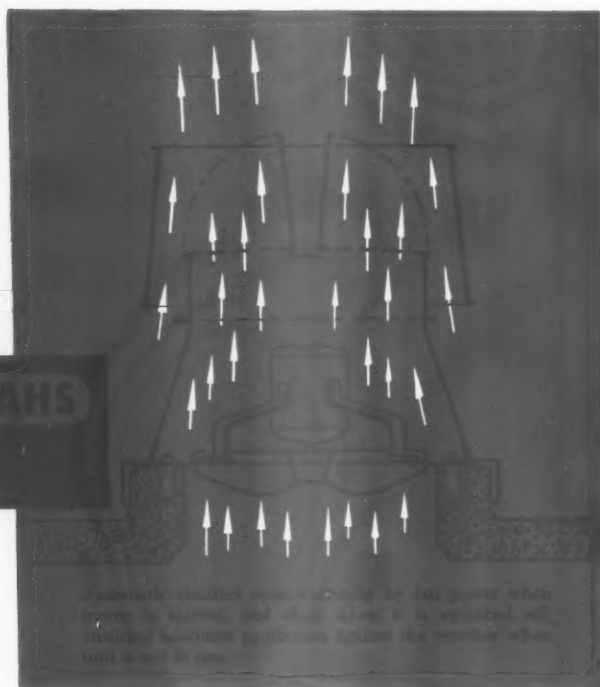
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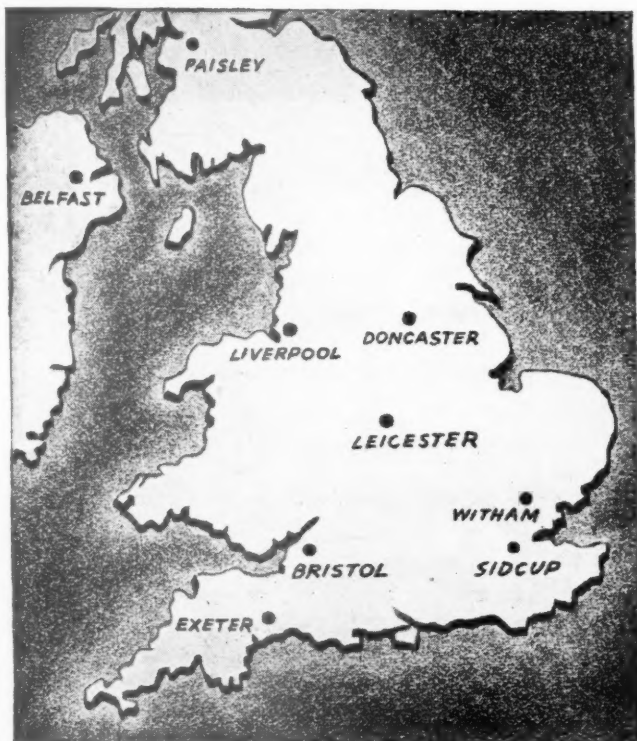
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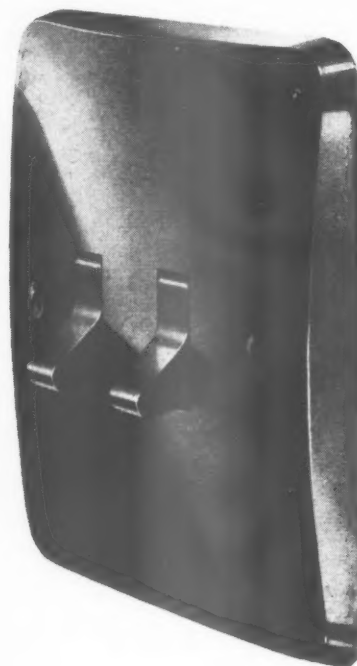
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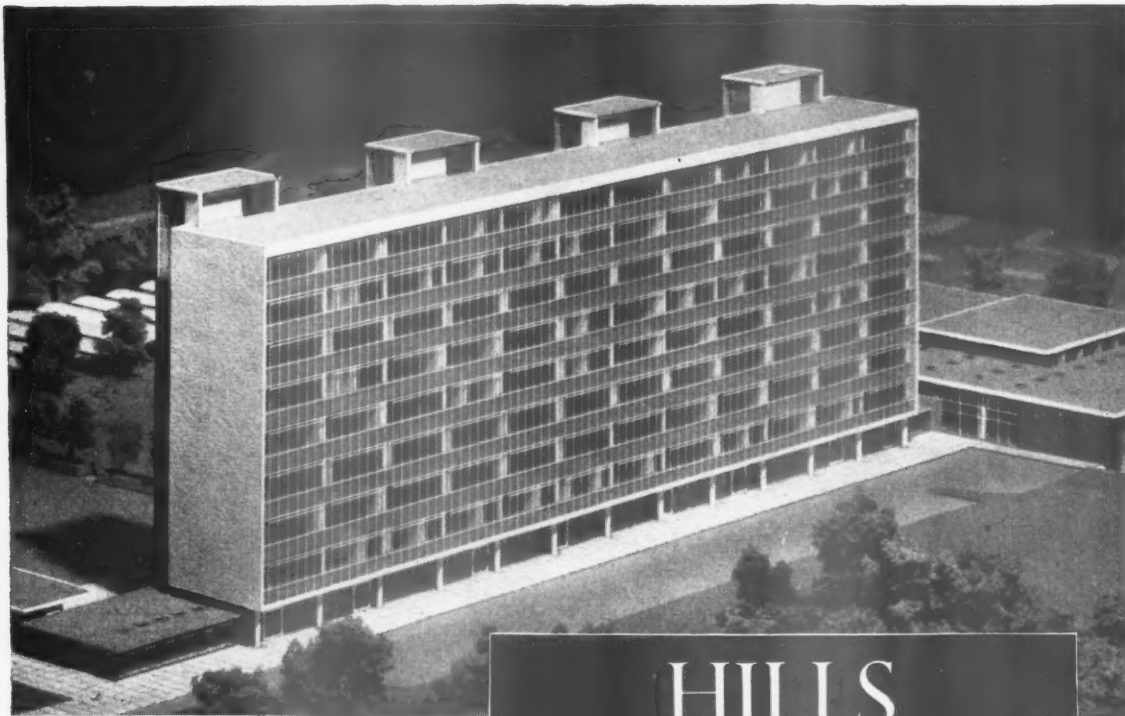
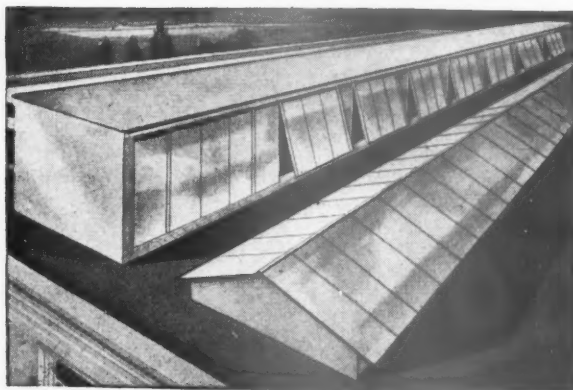


Illustration above is of the Strand Comprehensive School at Tulse Hill. Architect to the London County Council: Dr. J. L. Martin, M.A., PhD., F.R.I.B.A. Schools Architect: Sidney Howard, L.R.I.B.A. Architect in charge: J. M. Kidall, A.R.I.B.A.

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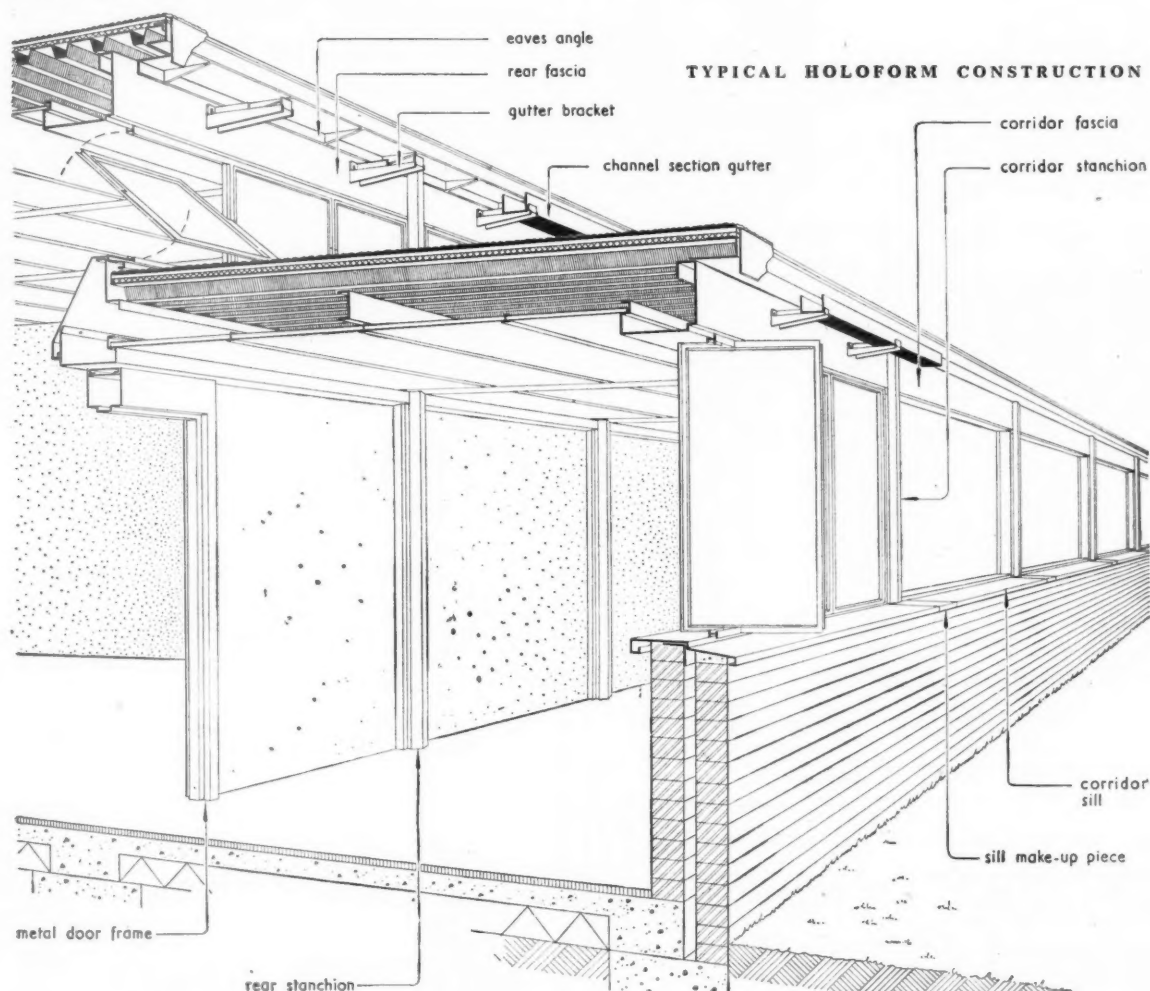
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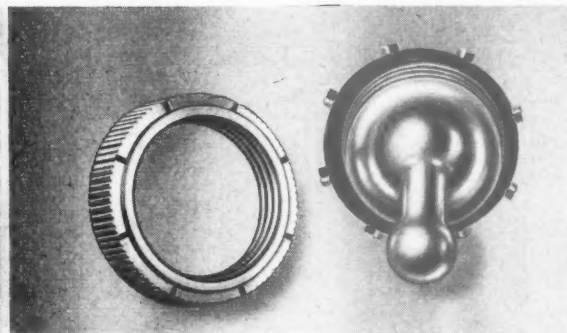
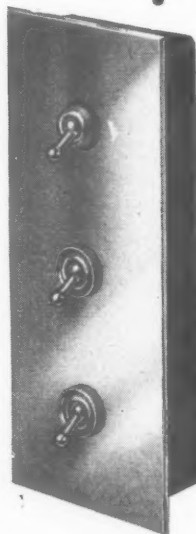
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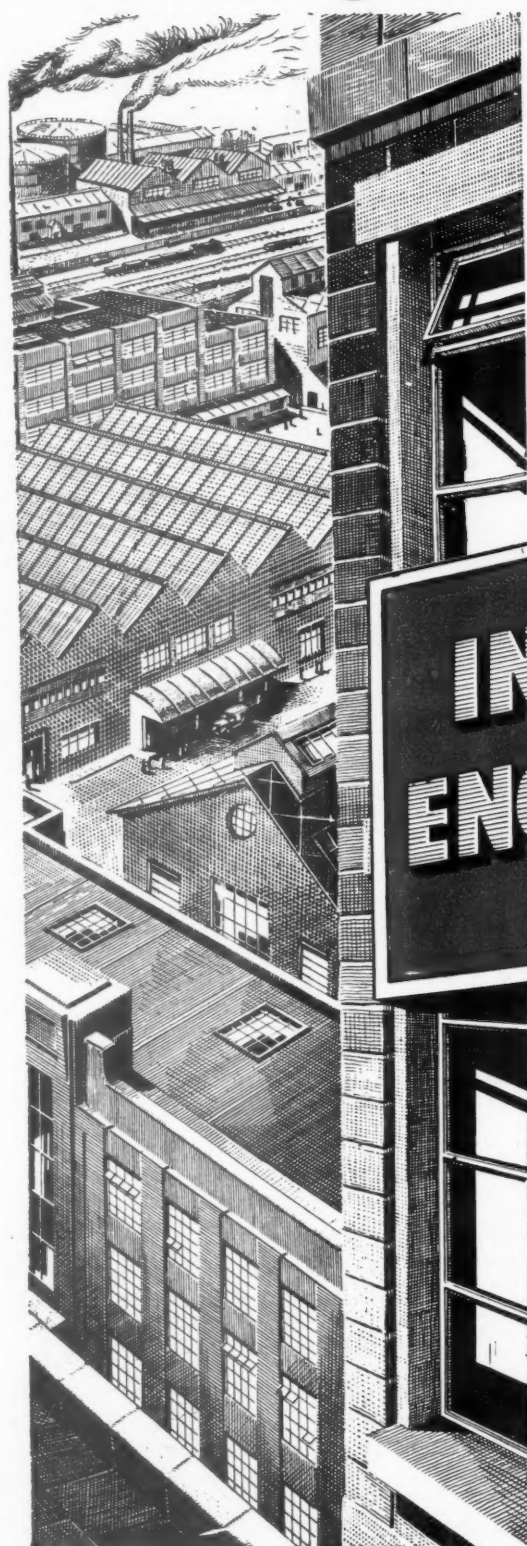
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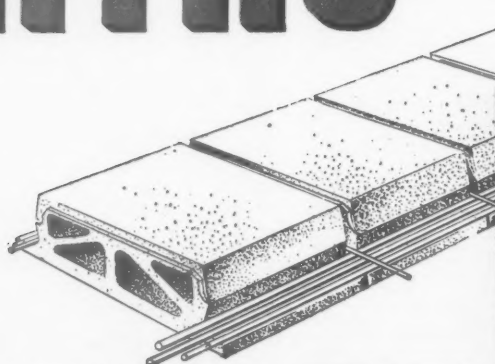
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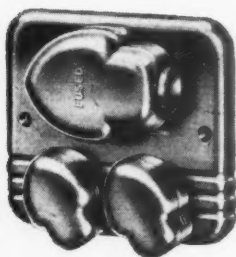
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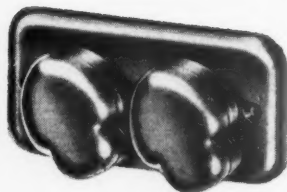
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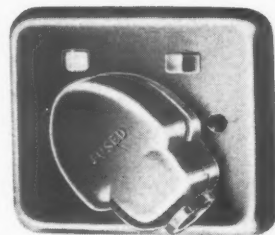


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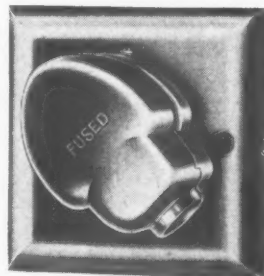
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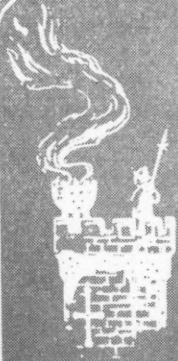
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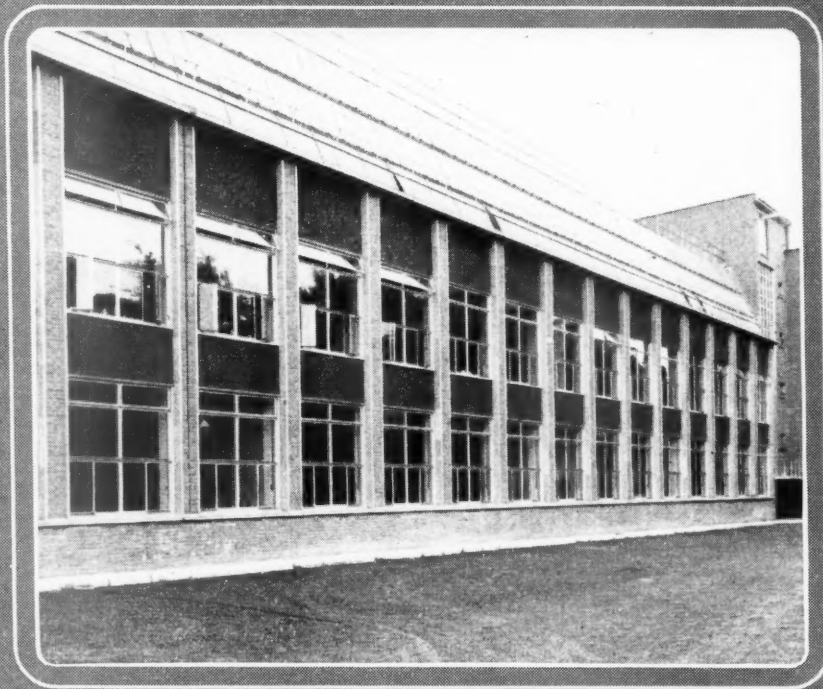
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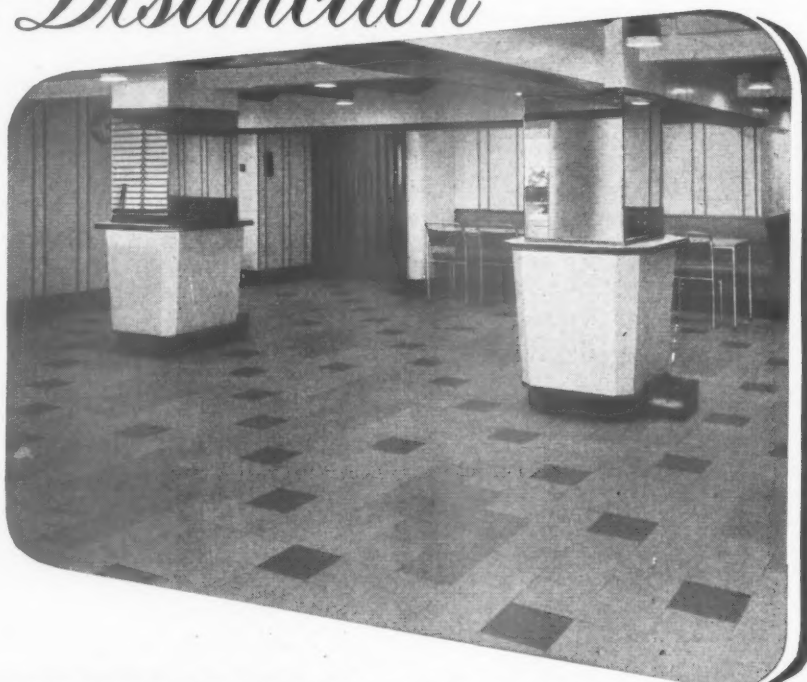
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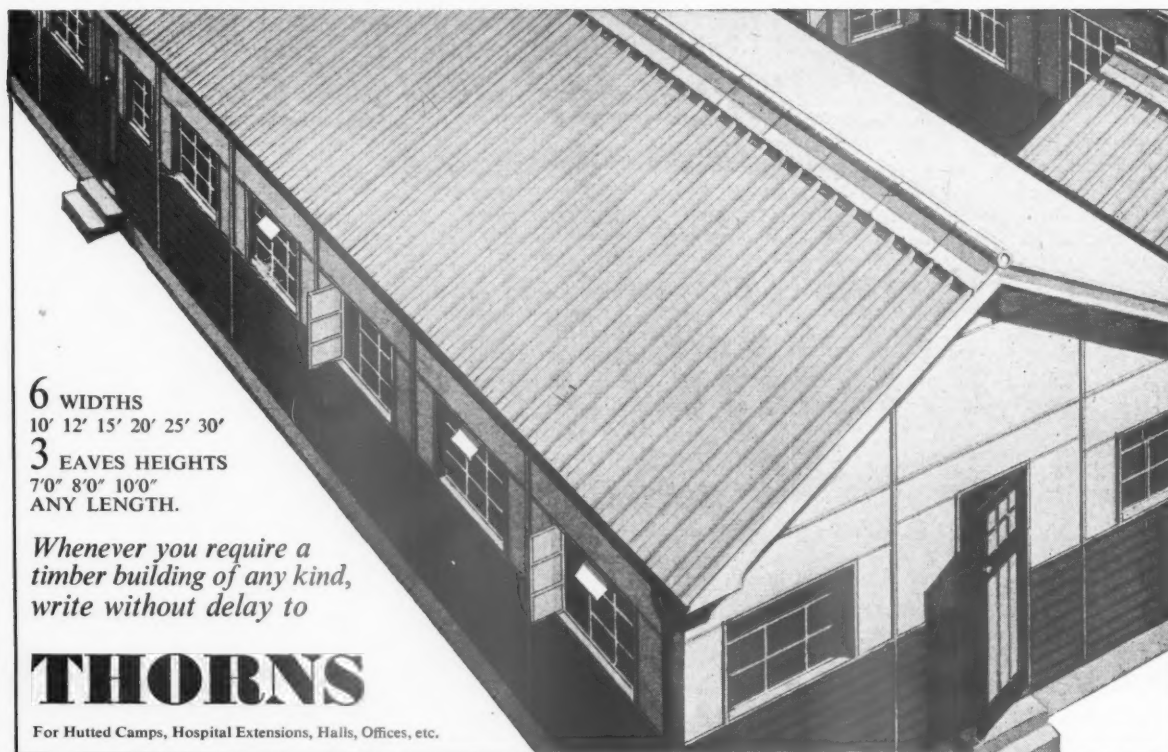
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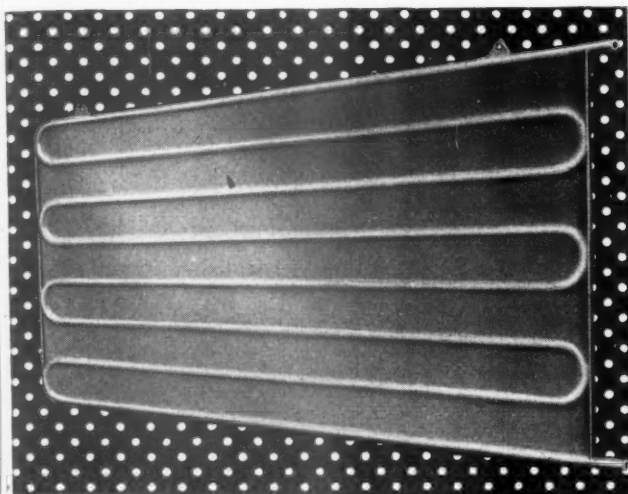
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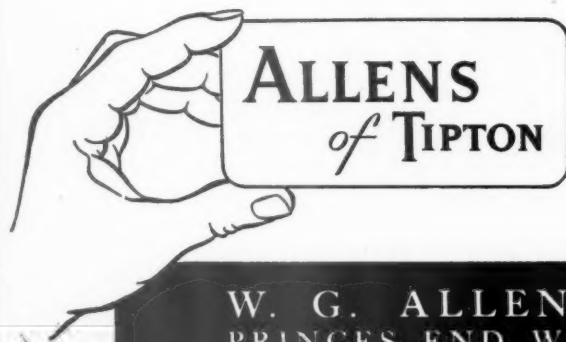
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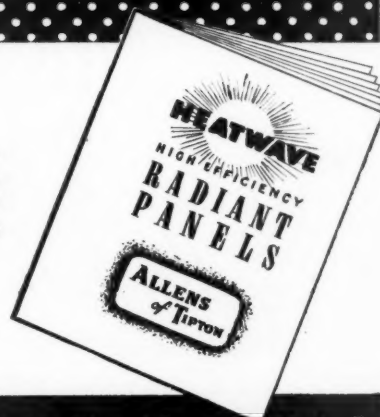
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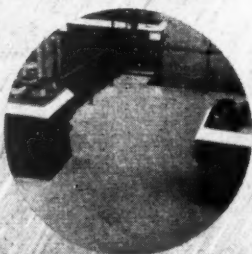
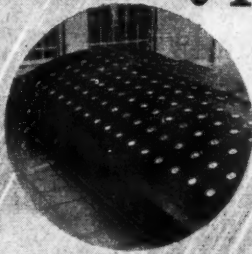
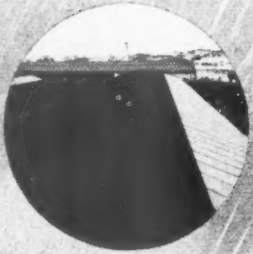
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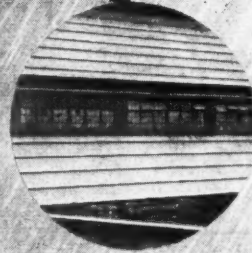
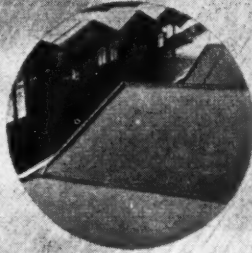
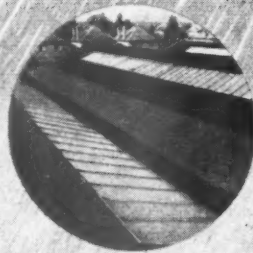
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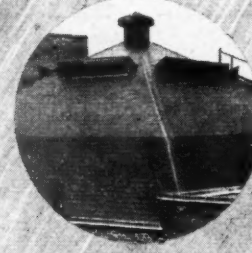

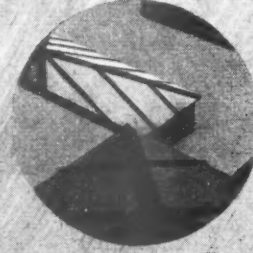
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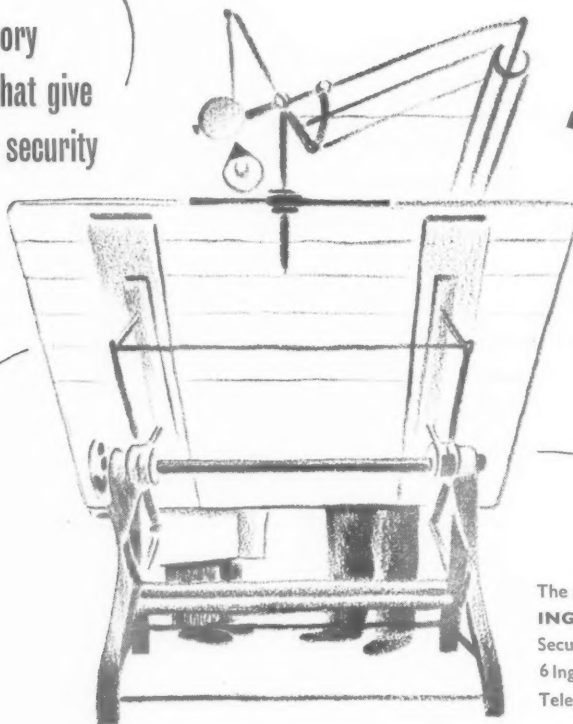
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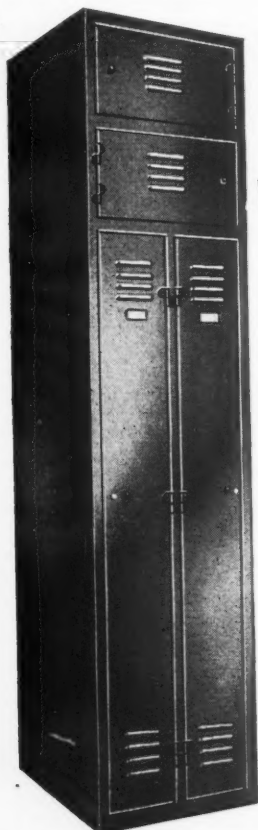
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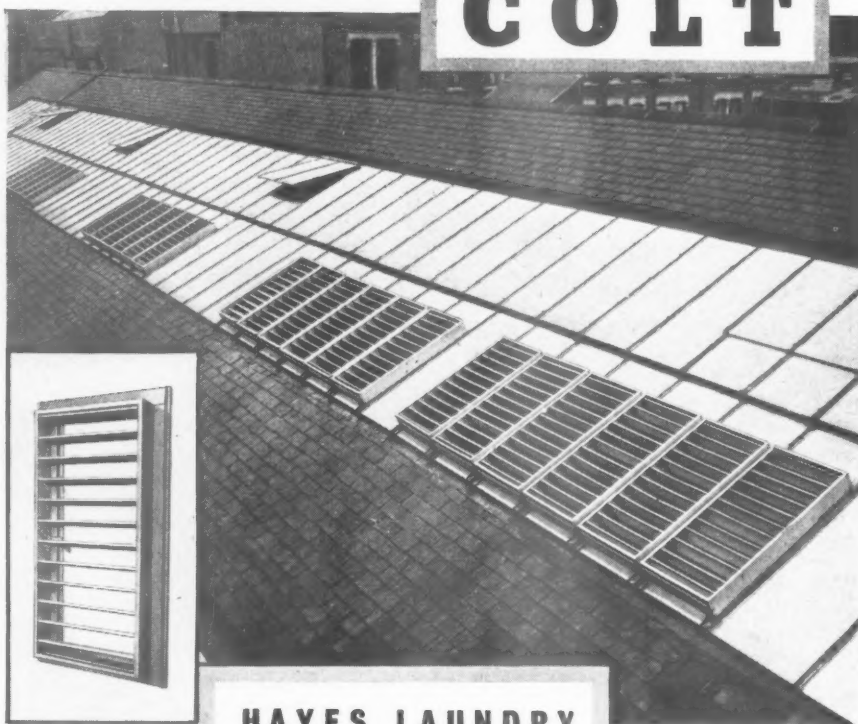
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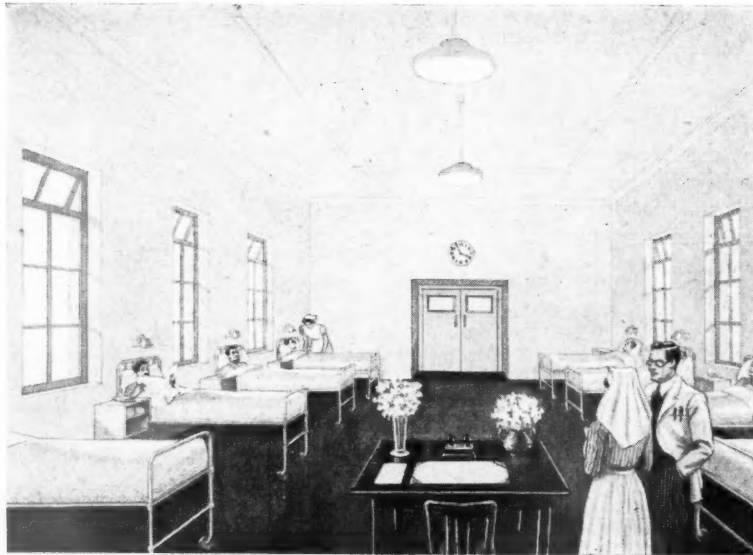
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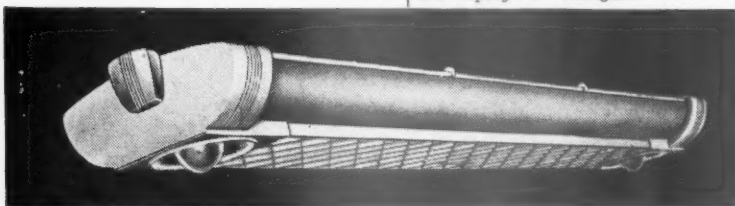
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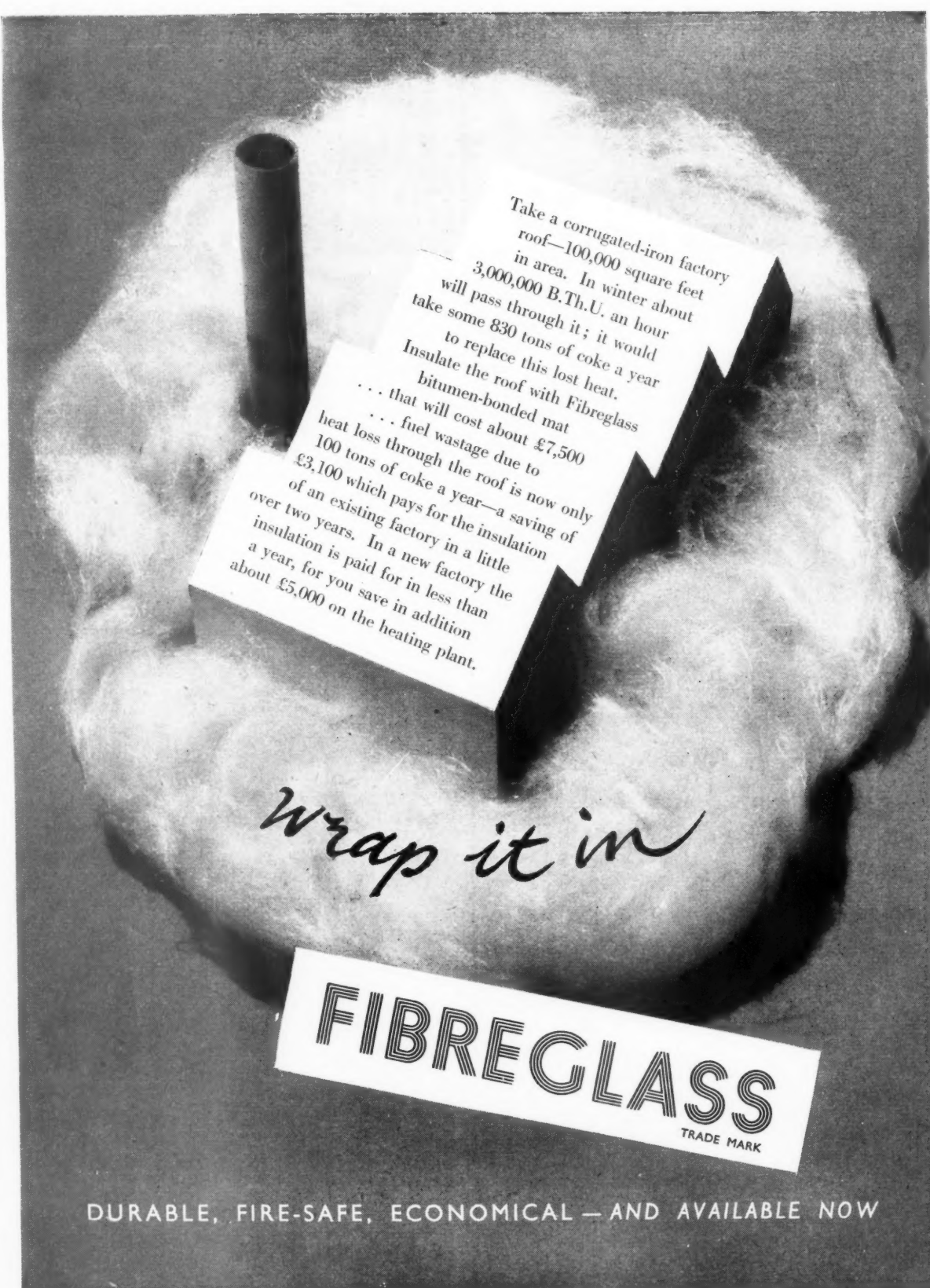
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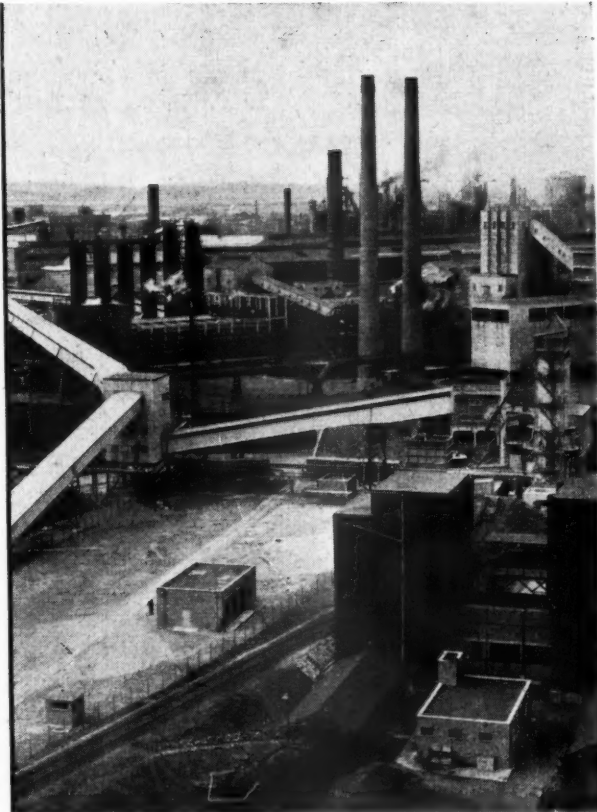
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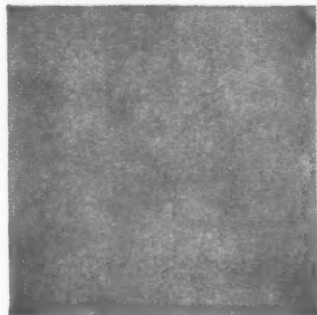
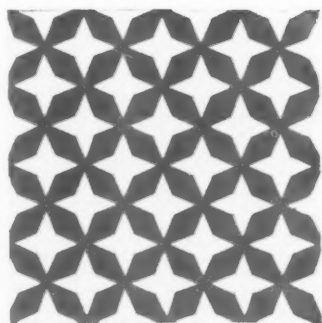
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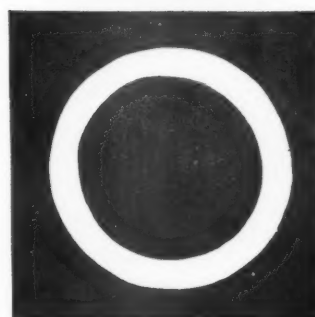
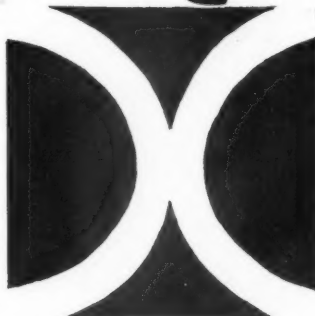
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THE ARCHITECTS' JOURNAL

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NO AUTOSTRADIA YET

All the motoring and road organizations have been pretty luke-warm about the £15 million a year road plans, which certainly have rather a piecemeal flavour. No major schemes like the Forth or Severn road bridges, and no mention of the much-needed road from South Wales to the Midlands. But one can at least approve the completion of the Dartford-Purfleet tunnel (1955-56), and double carriageways on Western Avenue should make it less of a death trap.

*

As far as ASTRAGAL can remember the Cromwell road extension involves a fly-over at Hammersmith Broadway, and this should really do something to help

the enormous Great West Road Traffic. But it's quite true to say that there are no signs of a proper trunk road system being started in the foreseeable future. If we ever get any such thing our car manufacturers will probably have to do some hard thinking too, for it is unlikely that most British small cars will stand up to the hours of hard flogging that the French and Italian manufacturers seem to take for granted.

WONDERFUL COPENHAGEN ?

Having had occasion to make literally a flying visit to Copenhagen, ASTRAGAL feels there is much to be said for visiting other people's cities in the "off season." While London appears to have sweltered under a late spell of fine weather, Copenhagen's climate was dull, if not dreary. All those gay buildings we so envy bedecked with summer flowers looked—dare we say it?—really rather like our own. Not all the Christmas trees in the streets could make Copenhagen glamorous. Gone was the colour and the plants, while of those sunburned blondes one could see only Danish blue noses peeping above fur collars.

*

We usually see other people's cities in summer and our own in winter; it is comforting occasionally to reverse the process.

OXFORD UNDERGRADUATES . . .

Robert Jordan tells me that he was speaking recently to one of the Oxford undergraduate clubs on the subject of New Towns and all that. He was rather astonished at the knowledgeable and intelligent discussion that emerged.

Oxford University, of course, has no students of architecture or, indeed, students of any of the visual arts. The discussion, therefore, is a fair measure of the state of mind of the "intelligent layman" among the younger generation. Ten or fifteen years ago such a discussion would have been inconceivable. Oxford students are not, ASTRAGAL gathers, like those of the AA, living in the post-Corbusier era, but they had got their points all right, and made them.

. . . AND DONS

Do publicity and criticism sometimes do their work? It would seem so, provided critics say what they have to say at least ten times. ASTRAGAL hears that Magdalene's cement-rendering with scratched joints now extends over quite a fair stretch of the façade to the High. All scaffolding and workmen have, however, vanished. Have the Magdalene authorities been shamed into repentance, or are they merely thinking again?

FALLEN STONES

What a perceptive and sensitive writer is Miss Rose Macaulay! In her *Pleasure of Ruins** she has something to say about almost every dead city and temple of this aged planet; better still, she can quote innumerable travellers upon the subject. Palmyra, Baalbec, Goa, Timgad, Carthage, Troy, Khorsabad all flicker into life beneath her magic pen.

*

For those who prefer their architecture in the last stages of death, rather than shimmering, new and clever, this book will make a pleasant Christmas Day.

* Weidenfeld & Nicholson, 25s.



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NEW ROME

Mussolini's "New Rome"—at least that part built for the abortive 1942 Exhibition—is now being completed and used. Recently, my informant tells me, it contained an interesting exhibition showing post-war land reclamation. Particularly interesting are the two larger buildings at either end of the main axis—the one a great square exhibition hall lit only through the glazed spandrels of its dome, and the other the Chirico-like pseudo-classical tower block which, it is rumoured, is to be used by the Ministry of Agriculture.

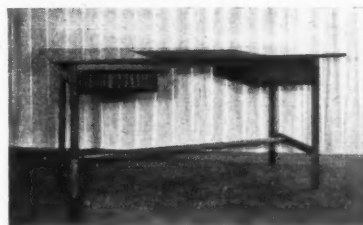
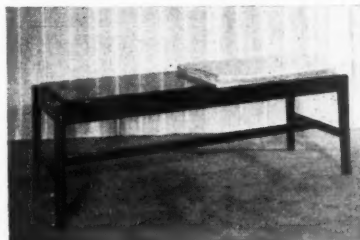
ASTRAGAL'S correspondent also visited the new monument to the victims of the Ardeatine cave massacre, and was rather horrified by the landscaping which is in the worst Italian municipal manner. However, this is not irreparable, and does not greatly detract from the deeply moving monument—a great block of concrete held slightly off the ground on six points, shielding the tombs of the eighty hostages.

Comparisons are, we know, invidious, and memorials to the dead are hard to discuss dispassionately, but ASTRAGAL cannot refrain from comparing the Ardeatine Memorial with some of our own recently much in the news.

STEAM PHOTOGRAPHY AGAIN

The ICA exhibition, *A Parallel of Life and Art*, which ASTRAGAL referred to as "steam photography" and thus provoked the wrath of all three people who have never heard Bernard Braden refer to "steam radio," turned up at the AA the other day, hung in a slightly more conventional manner (*i.e.*, on the walls) than last time we saw it. The student body recently laid on one of their Forums with the exhibition as its theme, an animated time being had by all. The discussion was good-tempered, but often very passionate, and some high-pressure emotional words were thrown about, *e.g.*, Alberti, Nature, Neo-picturesque; "order" of one sort or another was demanded from the floor, as well as the chair.

This was one of the liveliest discussions that ever went over ASTRAGAL'S head. It seems that the Students' Forum will fulfil its intended function



Some of the furniture made by the Scottish Furniture Manufacturers, which is to occupy ground floor rooms at the new residence of the High Commissioner, in Colombo. See frontispiece on page 742.



of starting people talking, and will become one of the established features of London's architectural life. It represents a lot of hard work in some quarters, but, of course, such efforts at self-education are an essential part, if not the very core, of the AA tradition.

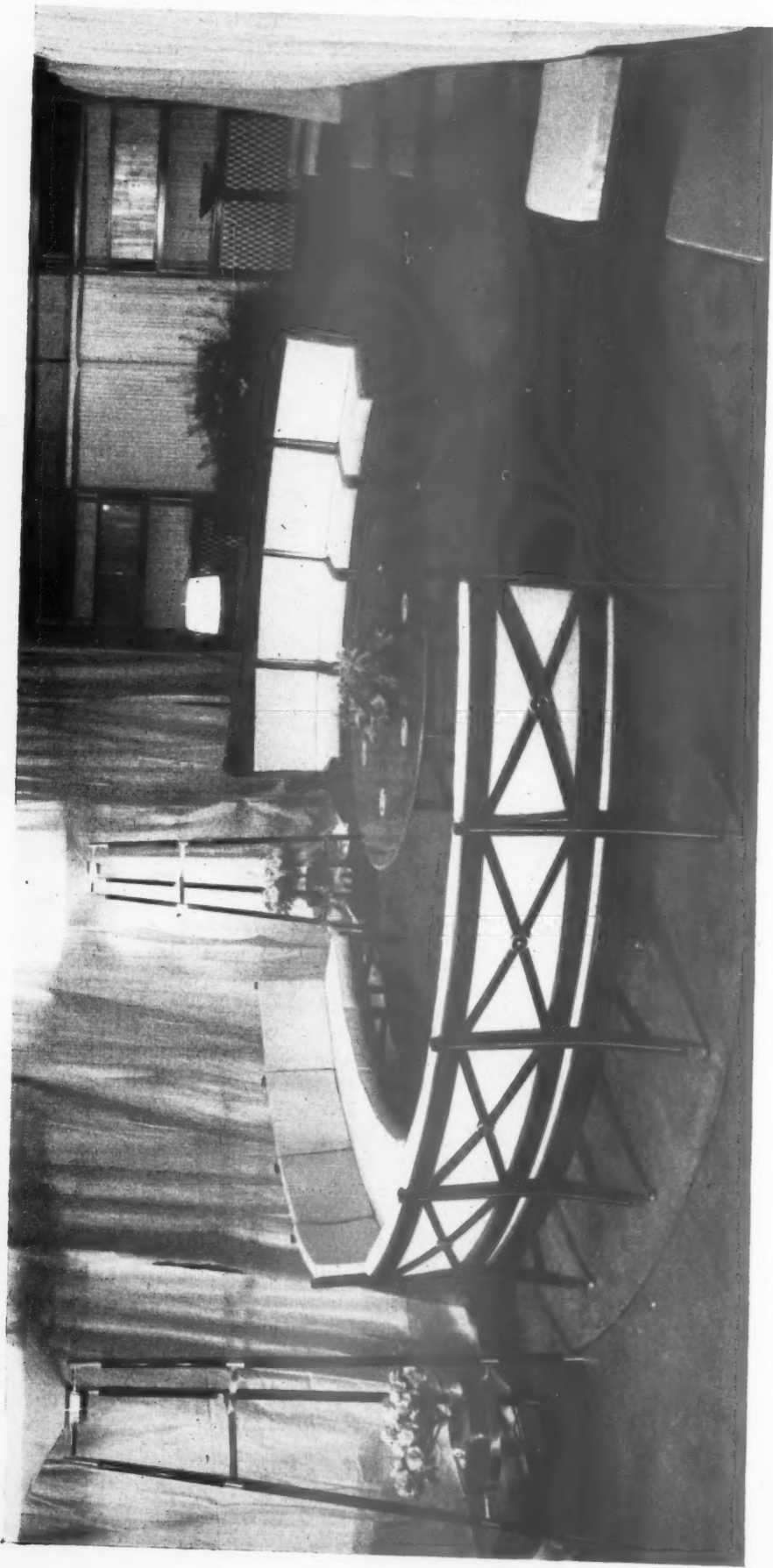
How about provincial schools please copying?

TITO'S TATE

From the AA ASTRAGAL wandered, belatedly, to the Balkans (the Arts Council branch). Most of us have a rather shaky knowledge of shifting Balkan frontiers through the centuries. And ASTRAGAL who, twenty years ago, spent three days in a slow train from Istanbul to Trieste, is no better informed than anybody else. All he remembers of that slow journey was crossing—so it seemed—a frontier (plus customs, money-changing, etc.) about every twenty minutes, and

rationing himself to two chapters a day of his only book—an early P. G. Wodehouse bought in Salonika. The replicas of Yugoslav Mediaeval Frescoes, which were served up for us by the Arts Council at the Tate, did however make one thing clear. In the Middle Ages the curiously vague boundary between the Byzantine world and the Roman world ran slap through what is now Yugoslavia; the frescoes from the churches in the north are not only Roman in character, they are "pictures" or panels intended to be framed in by the lines of Romanesque architecture. The frescoes from the great Serbian monasteries in the south must have flowed over Byzantine vaults and domes.

This exhibition of replicas demanded comparison with the replicas of Ravenna mosaics last year. It was as authentic. It was less glamorous, more subdued, and in some ways nobler.



The Crown Furnishes

The furniture that the Ministry of Works has commissioned for the newly completed U.K. High Commissioner's residence at Colombo is being shipped to Ceylon this week. Some illustrations of it appear above and on page 741. They deserve putting on record as the Ministry's first attempt to provide furniture of contemporary design for official purposes following the severe criticism of their usual stuffily conventional style that has appeared recently, notably in the January number of the *Architectural Review*. For the Colombo residence the Ministry invited fourteen furniture firms to submit designs, as a result of which all the ground floor rooms were entrusted to one firm

(Scottish Furniture Manufacturers) and the bedrooms to three others (Bath Cabinet Makers, Beresford and Hicks and Gordon Russell). The bedroom furniture, designed in the makers' own works, is contemporary if somewhat commonplace. The ground floor furniture, though it has a neo-Regency flavour that some may question, is far more distinguished. The manufacturer called in Dennis Lennon as designer. Above is some of his mahogany furniture—settees, movable seats and coffee-tables and cabinets—for the drawing room. MOW is to be congratulated on its enterprise. The Colombo building will be illustrated in the JOURNAL shortly.

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PLAY AREAS

The *Housing Centre Review* devotes its November-December number to the problem of children's play areas in housing estates, and publishes a number of designs submitted for a competition on this important subject. ASTRAGAL feels the Housing Centre deserves praise for tackling the subject, and architects interested in it will find quite a lot of useful information here.

*

At the same time one regrets the lack of anything really original in the competition schemes illustrated. Compared with examples in Scandinavia—some of which might well have been shown—and the LCC play areas illustrated recently in the *Observer*, the Housing Centre's results are, frankly, rather ordinary. Where for example are the brightly coloured lorries and the "crawling" sculptures?

A MACHINE FOR LIVING IN

A citizen of the Machine Age who recently "went native" seems in the process to have opened a useful loophole in Town-planning law. The disorderly element in question parked his car on the grass verge of a private road in a south London suburb, and proceeded to live in it. In spite of complaints from the disgruntled inhabitants, he was not moved on, and apparently could not be.

*

A private road is not a public highway, so this man was not committing any kind of parking offence, and a motor car is not a caravan, so he was not contravening any sanitary regulations. A note of mystery creeps in here, for the owners of the private road took no action for trespass, which presumably is the correct legal lever under these circumstances.

*

This citizen sat tight, defying all attempts at eviction, washing himself and his underclothes in full view of outraged householders, and throwing flash-lamp batteries and other missiles at press photographers. After twelve days he and his car disappeared, and are probably now in some other private cul-de-sac, having clearly demonstrated that an Englishman's Vauxhall (registration, VV 2927) is still his castle.

ASTRAGAL

POINTS FROM THIS ISSUE

Ian Bowen writes about Registration problems	page 744
The salaried architect's problems discussed	page 746
Article on acoustical design	page 761

The Editors

THE CASE AGAINST THE ABT

THIS week we report a discussion on architects' salaries which was recently organized by the ABT. It was partly the outcome of proposals for a salary scale put forward in the *JOURNAL*. Included in the report are excerpts from a speech made by H. Moncrieff, the President of the ABT. He presents quite a good case why architects—or at any rate salaried architects—should join the ABT. It is the only organization recognized by the ARCUK, the RIBA, the TUC and the government as qualified to act as a trade union for salaried architects. That, as those familiar with trade union matters will recognize, is a considerable achievement. Nevertheless, the ABT has very few architect members. The exact figures are not available, but out of a total membership of over 3,000, probably no more than 600 are architects. The remainder are engineers, surveyors and clerks of works. Six hundred is not high, out of a total profession of about 20,000, of whom at least half are salaried architects.

Why don't architects join? Partly because the "professional" man is reluctant to join a trade union (affiliated, oddly enough, to the NFBTO—so that architect and operative join hands, so to speak, against building trade employers). And partly because, even if he is prepared to become a "union man" (with the implication that he has decided, to himself, that he'll never be self-employed, but an assistant for life) he sees little reason for making a common cause with surveyors, engineers and clerks of works—three professions of a relatively subsidiary nature to architecture.

The third reason for not joining the ABT, and probably the reason why its influence has declined of late, is because it is reputed to include extremely left-wing, or possibly Communist membership. Mr. Moncrieff has pointed out that the ABT has no political fund or affiliation, and that the political beliefs of individual ABT members are unknown. Nevertheless, the ABT acquired, in recent years, a reputation for being Red, and that, today, will probably not encourage membership. We shall be pleased to hear that this reputation is unfounded.

A trade union without members is as much use as a priest without a parish. The first step for the ABT to take, if it wishes to serve *architects*, is to remove the cause of the above criticisms. No doubt other criticisms will then emerge which will have to be answered in their turn. If the ABT cannot speedily attract more architect members, then the architectural

profession would be as well off without it. At present, assistant architects, many of whom have just grievances, would be well advised to stand by the RIBA who, through the Salaried and Official Architects' Committee, are, we know, from the announcement by Chairman L. C. Howitt, at the RIBA's annual general meeting last May, studying all the problems of the assistant architect, as regards his representation, his status, and his salary. His interests, we suggest, are in good hands.

FOCUS ON

Mr. George
SETT, Herbert A.
KETT, John Leslie,
1. ECKINGSALE, Alec, 107 Cornbarrow Road, n.
REDDALL, Thomas William, 37 Pine Road, Trivale, Lincs.
2. BEDDINGTON, Miss Madeline Dagmar, 20 Kensington Park n.
3. BEDFORD, Eric, 18 The Uplands, Loughton, Essex. 1933.
BEDFORD, Peter Francis, 20 Froggall Lane, London, N.W.3. 19.
BEDFORD, Willie Denby, 199 Lockman Street, Preston, Lancs. 1.
BEDINGFIELD, Eric Edward, T.D., 81/80 Grove Ten Road, Holbot
4. BEDWELL, Frank William John, 319 Alexandra Park Road, Wood Gr
5. BEE, David Proctor, Department of Agriculture, St. Andrew's House
6. BEE, Philip Raymond, Hargreaves, Kings Lane, South Heath, Gr. 1
7. BEE, Thomas James, 176 Longlands Road, Sidcup, Kent. 1933.
8. BEECH, Frederick William, 15 Dixie Field, Exeter. 1933.
9. BEECH, Geoffrey Clarence, Edmondson Office, The Deans, W.
10. "H. George Henry, 175 The Avenue, Tottenham, London.
11. "Rushworth, "Bridle Cottage," Azeo
12. "ard, 14 Park End Street, 1933"

YOU

The JOURNAL's Guest Editor, Professor Bowen continues to give results of his enquiry into the state of the architectural profession. (The names shown in the headpiece above were taken at random from the Architects' Register, and are not related to this article.)

Guest Editor :

Professor IAN BOWEN

Registration Problems

REGISTRATION of architects has been effective for some years now, but not long enough for all the anomalies, prevailing before the system was introduced, to be cleared up. In the course of our enquiry several of these anomalies were brought home to us, both by the facts themselves, and by the opinions that were advanced. For example, it was often forcibly emphasized that the stable door had been closed too late, after the borough engineers had bolted (engineers in charge of architecture having dubbed themselves architects). At present the profession is half-way across the division between being unorganized and being organized, so it is not surprising that there should still be some anomalous cases. A much graver problem is whether registration will effectively

result in the improvement of professional status for which it was devised. Will registration, in the long run, adequately preserve a high professional standing for architects? This is the really serious problem, and deserves very careful consideration.

PROFESSIONAL STATUS

Perhaps some analogies with other professions may be helpful. Barristers have had to pass some quite stiff professional examinations, and join a society, before they can be called to the Bar. Doctors have even longer—and more exhaustive—training, involving examination and practical work, before they are allowed to practise as medically qualified persons. University teachers have to attain high honours in degree courses at their university before they are eligible to enter for even the most junior appointment. In all three professions, however, high examination qualifications are required for more than merely formal purposes; without those qualifications no one could practise his profession successfully. The barrister without a full training would soon fail; the medical man would degenerate into a mere quack, and so on. The training is necessary as well as being, in part, a formality demanded for the qualifying examination; it is part of the professional's stock-in-trade.

On the other hand, the formal training is not in itself usually sufficient. Experience alone, added to formal study, will turn the newly-called barrister into a leading member of the Bar. Training by way of examination is not regarded as a substitution for, but as a necessary adjunct to, the gaining of experience.

The ultimate idea behind the registration of architects is usually presumed to be the same. The training for examination is supposed to be necessary; the nature of the training is intended to be such that no architect could be successful as a practitioner unless he had mastered it, among other things. Professional status is not, on the other hand, intended to be gained by a mere formality, but by way of an entrance initiation that no architect worthy of the name should have missed.

To some extent this idea has, in fact, been realized. The necessity of an architectural school training is widely recognized. It leads not merely to a

certificate of worthiness, but to the individual himself being unquestionably more fit to undertake the responsibilities and duties of an architect. But there are two reasons why the registration procedure does not wholly satisfy the test of practice. First, there is the mere fact that thousands of existing "architects," legally entitled to that name, entered the profession without formal schools qualification, under the old dispensation. This cannot but detract from the idea in the mind of the public, that an "architect" means a fully qualified man. Secondly, there are the doubts lingering on here and there that old-fashioned learning on the job might still be a good substitute for schools training or academic instruction.

These doubts are fast disappearing, as the opinions quoted from our sample have shown. But they are often loosely confused with doubts about the merits of the curricula followed in the teaching of architectural students. These doubts about the *content* of the courses followed (particularly the widespread belief that some kind of practical training should be interpolated with lecture courses, etc.) are not only widely shared, but evidently based on experience. Some people have a vague fear that architectural training is not so completely necessary to the architect as it ought to be.

STANDARDS OF EDUCATION

The status of the profession must depend partly upon the unquestioned acceptability of the educational standards necessary to enter it. If it were generally accepted that no architect could effectively be an architect (law or no law) unless he knew, say, A, B, C and D—four branches of study—then there would be no difficulty involved in getting A, B, C and D written into the syllabus of an architectural school.

Thus, standards of education are not a matter of indifference to the profession as a whole. If the standard of education were clearly understood, and accepted, then no one who had not attained that standard would be long accepted as an architect. If, on the other hand, there is some doubt about the educational standard that is being adopted, no legislation can compel respect for the degree or diploma awarded. The existing degrees and diplomas are at neither extreme. They do not fail to command some respect; on the other hand, they hardly command the unquestioned acceptance which would make the closing of the profession a natural further step in the process of organization.

It is, therefore, of immense importance for the profession as a whole that both the educational standards, and the contents of the educational courses, should be under frequent review, and that the highest standards, and the most

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REGISTRATION ACTS

As things are at present, it seems to the outside observer that there is some tendency to fall between two or three stools. Since the registered architect has to pass RIBA finals, or its equivalent, and has (if our sample is a guide) his best chance of becoming a principal or partner before the age of 40 years, he must take his training as early as he can in his own interests. But in fact a large proportion (a majority of some groups) can only obtain these qualifications rather later than is necessary to rise to a partnership, or to set up in private practice.

It is too early yet to tell definitely whether or not those who take a full-time course at a recognized school of architecture tend to achieve principal's status earlier than others. In the early stages of his career, the school-trained architect certainly seems, from our survey, to have the best chance of becoming a principal, but it may be that the office-trained architect (taking a course part-time) can make up for this in later years. The proportion of qualified architects in the profession is, of course, growing each year, and the merits of training may become clearer later on.

PAST MISTAKES

In this article some issues have been raised which it is hoped to discuss further in some concluding articles. The present note cannot be closed without remarking upon the dangers of the present transitional phase. Work of a strictly architectural kind seems to be constantly lost to the profession because of what are mistakes by members of the profession who ought never to have been allowed to have the title of architect. Compromise solutions come home to roost. An architect who does a poor job, whether for a public authority or for a private client, may lose not only himself, but the whole architectural profession, that kind of work in some locality for a considerable period of years. Several instances of this sort have been brought to my notice.

What is the solution? Are the professional authorities as keen as they should be on holding inquests upon disastrous shortcomings exhibited by some so-called architects? Endless delays in building, spinning-out of large contracts (sometimes for income tax relief purposes), faulty planning—stories of this kind with chapter and verse are not hard to come by. But it is not often that the architect is ever sacked by his client, let alone questioned by his professional body. That body is not, indeed, so constituted as to act as a relentless watchdog over this kind of shortcoming.

This is not to suggest that most, or

even many, architects are guilty of incompetence or malpractice; far from it—but among them (as among other professional bodies) there is a sprinkling of incompetents. The high reputation which the profession rightly wishes to see established depends upon any weaknesses being quite ruthlessly stamped out. This is certainly not happening at present.

Furthermore, so far from architects being in the position of longing to have their names on the registration list, quite a few choose not to bother with this formality. It was surprising to find teaching architects of repute, and practising architects in partnerships, who had not bothered to register. The register is not, therefore, a true register of all qualified men still practising (or teaching) architecture. Evidently a list from which practitioners withhold their names cannot command the respect of a list on which every architect would be proud to be enrolled, and from which his name would be deleted only because he died, withdrew from the profession, or was disqualified.



MOW

Double Licences for Blitzed Cities

Sir David Eccles, the Minister of Works, expects to issue building licences for the blitzed cities as a whole, next year, to approximately double the value of the 1953 total allocation, on the basis that work will be licensed up to the capacity of the building industry in each area. Under the new system of licensing, announced in the JOURNAL last week, allocations are no longer necessary. Local authorities of blitzed cities are being advised to push forward negotiations with prospective developers and to keep up to date the programme of work they would like to see put in hand.

Kensington Palace Restorations

Sir David Eccles, Minister of Works, has explained, in a Parliamentary written reply, expenditure on the repair and restoration of Kensington Palace. He said: "The position is as follows: Kensington Palace is of out-

standing historic and architectural importance, and the repair and restoration of the palace, including the private residences, is a duty which must be carried out.

"The first step was to restore the state apartments to public use in 1949. This cost £17,000. The next step was to accommodate the London Museum after King George VI had granted to the London Museum the free use of about 20,000 square feet in Kensington Palace, thus saving public funds several thousand pounds a year in rent. The cost of this work was £50,000.

"A third item was the restoration and modernization of other parts of the palace, including a grace and favour apartment for the Duchess of Kent. Work was started in November, 1952, and £35,000 is provided in the Civil Estimates for royal palaces. Another important item is the provision of a new boiler house to serve the whole palace, including the London Museum and state rooms. This work is now under construction at an estimated cost of £42,000."

LCC

Sculpture Exhibition, 1954

The LCC has decided to hold a third exhibition in 1954, this time in Holland Park, Kensington, which was recently purchased by the council from Lord Ilchester. The Council hopes to show, during the summer, works by Despiau, Epstein, Giacometti, Laurens, Maillol, Marini, Rodin, and many others.

WINDSOR

Gardens Opposed Again

A scheme promoted by a private firm for the creation of pleasure gardens, designed by James Gardner, on the riverside and Baths Island at Windsor, was approved by the town council three weeks ago. But opposition in the town has increased rather than diminished, and last week hostile resolutions were passed at three meetings.

The Youth Advisory Committee opposed the scheme mainly on the ground that in the gardens were to be a pin-table pavilion and a licensed bar. The Windsor Youth Club, one of the constituent bodies of the Youth Advisory Council, is organizing a petition and canvassing the electors.

At the monthly meeting of the Divisional Education Committee a resolution was passed by eight votes to two, with four abstentions, protesting that the gardens as proposed would militate against a sound mental and moral training of the youth in the schools.

At a meeting of the Windsor, Eton, and Ascot Chamber of Trade the town council were condemned as failing in their duty to protect the amenities of the town, and because they had acted in a manner contrary to the wishes of the inhabitants as expressed at many meetings.

DIARY

Charles Rennie Mackintosh. Exhibition at the RIBA, 66, Portland Place, W.1. (Sponsor: Saltire Society and Arts Council.) Weekdays, 10 a.m. to 7 p.m.; Saturdays, until 5 p.m. UNTIL DECEMBER 23

Contemporary Lighting Fittings. Exhibition at the BC, 26 Store Street, W.C.1. Weekdays, 9.30 a.m.—5 p.m.; Saturdays, until 1 p.m.

UNTIL JANUARY 7

Some Structural Uses of Aluminium Alloy with Special Reference to Domes. W. Hamilton and G. P. Manning. At the ISE, 11, Upper Belgrave Street, S.W.1. 5.55 p.m. DECEMBER 17

On November 16 the ABT organized a discussion at the Caxton Hall, S.W.1, on the problems of salaried architects. The chairman, D. A. C. A. Boyne, executive editor of the JOURNAL, pointed out that the meeting had been called as a consequence of the article in this paper (July 16) by Douglas W. Richardson,

the first speaker. His views, the chairman pointed out, were similar to those of the JOURNAL's Guest Editors for 1952. The speakers who took part in this discussion were largely in favour of the idea that the ABT should become the architect's trade union, but we shall be glad to print any other points of view.

THE SALARIED ARCHITECT

HIS PROBLEMS DISCUSSED AT AN ABT MEETING

The first speaker at the ABT meeting was Douglas W. Richardson. Following are extracts from his talk :—

In order to defend the interests of architects, engineers and surveyors it has become, in my opinion, essential for us to form a professional association or union. This we have come together to discuss and is to some extent a consequence of certain articles which I wrote and were published in the ARCHITECT'S JOURNAL.

It is self-evident that such increases as have been made in the salaries of professional staffs since 1939 are in the vast majority of cases disproportionately low compared with either the currency depreciation or the increments obtained by other occupations which have powerful unions behind them.

In addition to arranging scales of salaries, rules of conduct, conditions of service and similar matters applicable to Government, Municipal, and private employment, there are other objects which are no less important concerning the conduct and membership of such an association as we seek to form. May I suggest to you that the association would exist for the benefit of its members in whatever capacity in the building industry they may be professionally engaged.

The association would on no account make grants to any political party or to politicians or other persons in return for legislative favours or other advantages whether direct or indirect.

The proposed body would be a professional association and would not use the cessation of work method, which cannot be justified, in order to achieve its objects.

VOLUNTARY MEMBERSHIP

I also submit that membership should be entirely voluntary and no coercion should be brought against non-members, however much they may gain from those who are members and support the Association.

In addition to matters concerning conditions of service, such an association cannot, as I see it, properly perform its

duties unless it is vitally interested in the national policy governing the industries on which the lives of its members depend. For example, it is my contention that there is some misdirection of the national building effort at the present time. Policy and regulations appear to me to be far too rigid and do not allow sufficient adjustment to meet vital and varying needs of individual areas.

I suggest that our determination be expressed in reconstituting the association which has called this meeting together and that it be named "The Association of Architects, Engineers and Surveyors" and that it has as its purpose the objects which have been outlined.

THE ARCHITECT'S WORTH

Several speakers, including the president of the ABT, spoke of the need for a revaluation of the public architect in terms both of money and of status.

H. Moncrieff, President of the ABT, gave his estimate of the value of the public architect.

In his view the architect in a key position should be placed "above the top lawyer or the director of a brewery." He ought to be paid five times the salary he received.

The newly-qualified architect, who had put up with lean years of study and, possibly, the frustration of National Service, and was, perhaps, hoping to get married, should be valued properly. The figure he should earn was nearer £15 than £10.

The group leader in London, who was looking after several hundred thousand pounds' worth of work, doing virtually the work of a principal, could not be worth less than £1,000 a year.

RIBA SCALE REASONABLE

Another speaker thought that the RIBA scale was a reasonable basis. He suggested that the meeting should form some opinions on what an architect was worth; they would then be in a better position to argue that they should be paid more for their individual efforts in certain types of office.

CONVINCING THE PUBLIC

Another architect present said that before the profession considered what a trade union could do for architects they had to convince those who employed them that there was such a thing as a professional architect, and that it was worth while to employ an architect.

Another speaker agreed that the profession had to convince the public that they were efficient and were doing the job. Their status in the offices would then rise, and that would be a time when they could press with some success for higher salaries. They had to convince the public that architects were doing a worth-while job and should be paid more than they were paid at the moment.

"RECOGNIZE DESIGN STAFF"

An important point in this connection, said another architect, was the recognition of individual contributions to a scheme. The RIBA should ask borough and county architects to give proper recognition to the design contribution of the various members of their staff, which in turn would cause local authorities to recognize that they had designers below the level of their principal officers. At the moment they were frequently unaware of the fact. Architecture was a very personal thing and such recognition would be a great incentive to many young architects, whose ardours were being damped at the moment. Borough engineers did not hesitate to take the credit for designs; they were seldom absent when the bouquets were being handed out.

RAISING PROFESSION'S STATUS

An architect could be negative and not save money for the authority, or he could have an idea which might save thousands of pounds, yet his efforts were seldom recognized. The architect should have recognition not only in a monetary sense but also in a personal sense, so as to raise the status of the profession.

WHO SHOULD BE THE ARCHITECT'S UNION?

A number of speakers gave their reasons why the ABT was more likely to be a successful trade union for architects than NALGO or the RIBA.

How can the public architect get a reasonable salary and due recognition? Mr. Moncrieff had this to say:—First of all there is the general question of the prestige of the profession. And I rank this as the most important factor. It is the business of the RIBA with all other organizations backing-up the Institute.

NO JOB FOR RIBA

The task is to let people know what an architect is, what he does, why he is an important fellow in the scheme of things; what he is trained to do and why people who aren't trained to do it, can't do it. It is the Royal Institute's job to uphold the dignity of the profession and to make the art and science of architecture understood and appreciated by men in authority and the man in the street.

I believe that the broad function of the RIBA as a learned society to advance the art and science of architecture and at the same time the general standing of architects, is not compatible with exercising the function of a trade union.

If not the RIBA, what then? Many people have said "Let's have a new organization." We are great people in this country for setting up organizations and committees. I like diversity and I hate totalitarianism, but there is a limit to the number of bodies our profession can carry. If it carries three—RIBA, ARCUK, and one trade union—that would be enough.

UNION'S JOB

Now what is the job that a trade union for Architects has to do? (1) Build up the prestige of architects. (2) Keep under review and make recommendations on the whole question of the organization and employment of architects. (3) Negotiate salaries. And may I suggest a fourth thing?—we in the ABT think it is important—and that is to consider the whole trend of the building programme and make recommendations on that as well. Bound up in all this is the question of recognition. We may decide all sorts of things, but *they* (the employers' side) may take no notice.

Now how do you set up a new organization? You have first of all to create a nucleus of people who are prepared to give time and money to initiating the thing, a lot of people will

be behind you—but they will be a long way behind you.

Then this little nucleus would . . . What? . . . Circulate all the architects on the Register? What would that cost? £200-£300? Address the 15,000 envelopes themselves in somebody's sitting room? Then the applications for membership come pouring in—or perhaps not exactly pouring in. What now? You really must have an office and a typist—two typists—a telephone, furniture, and . . . about £5,000.

And what are you offering these members and in what period of time? The Engineers tried it, you know. There was the Engineers' Guild and then about three years ago the Association of Local Government Engineers and Surveyors was formed with a great blaze of trumpets. It was formed directly because of dissatisfaction with NALGO. The only thing I have heard about them recently is that they have made an agreement for their negotiations to be carried on—by NALGO! A long and expensive way round to get back to where they started.

Now what about the ABT.—First of all, it's *here*: it's in existence, and has been for 30 years. It not only wants to negotiate for architects, it *does*. It has experienced full time officers and experienced architects on its committee who know more about architects' salaries, what they do get, what they can get, and how to get it, than anyone else in the country.

The ABT has the established legal status as a recognized Trade Union and it has won recognition in many quarters. . . .

We are prepared for changes inside the ABT to meet the needs of our members, a simple vote at an annual meeting does it. But we are quite convinced that no new body can have the experience, the loyalty and the enthusiasm that we have built up over the years."

WHY NALGO IS NOT A HELP

An architect, who had travelled to the meeting from Wales to put a case for his colleagues said that great dissatisfaction had been caused in one city by the difference between salaries paid to architects and surveyors in the National Coal Board and Hospital Board offices and those paid to local government employees. Many local government staff had been fortunate in obtaining appointments with these nationalised services and had secured the advantages of the scales published in *Keystone* in July and August, 1952. As the speaker had taken an active part in local committees of NALGO, he could state that a claim was put forward locally for uniformity and a review of the establishment. They were told by the Staff Side Panel of the Local Joint Advisory Committee that

the National Coal Board scale of salaries could not be related to local government, and that Hospital Board salaries were no better than those paid in local government. The reason was stated to be that no office could have an establishment for a principal assistant grade where a deputy was appointed. Indeed, they were told to find out whether they were underpaid in relation to other architects and surveyors employed by local authorities. This had not been possible as salaries generally were much too low. It showed, however, that at local levels NALGO had no sympathy with, or interest in, the professional staff.

Architects must obtain recognition of their professional status, and this did not appear to be possible while they tied their negotiating machinery to the numerous clerks employed in local government. The policy of NALGO did not allow for separate negotiations for professional staff.

WORKING AT CUT RATES

It was the practice for a man to be appointed in local government on a salary grade and never to leave that grade, which meant that if he changed his job or was lucky enough to get promotion any increments were limited to four years' advancement of £25 to £30. He was faced with heavy expenses if he moved, and the loss of capital value, and the question really was, could the salaries be improved in his present job? It was recognized that the time taken by an architect on a big school scheme, for instance, was three to six months. We should consider what was paid to the architect in local government service for such work and we would come to the conclusion that he was being employed at cut rates.

Another speaker emphasized that no new organization should be set up, because it would be a blow at the unity of the RIBA. It was the job of the ABT to go into the hurly-burly of negotiating committees, of rights and arguments about salaries with committees of local authorities. When one considered that the RIBA consisted of both employers and employed one would realize what effect there would be if the RIBA were thrown into this field of contention. Quite apart from any question of its constitution, its very existence depended on its not getting into that field.

This did not mean that the RIBA had not an important part to play in raising the status of the architect. The policy of the ABT, on the other hand, in carrying out its rôle as a negotiating body, depended basically on its size.

Only the ABT could force local authorities to employ architects in their correct grades, said another member of the audience. It was not good enough for an authority to say: "We have an establishment for only three people in

APT VI." If they had work for 16 architects in APT VI they should pay them the correct salary and not employ them in APT III. Such work could not be left to the RIBA. If the ABT could do it they would have done their finest job for the profession. Would the ABT consider that as a live issue?

Another speaker thought that this was work which the ABT could do. But even the ABT could do it only if architects had a sufficient standing to give the Association a basis on which to work, and it was the job of the RIBA to maintain the status, training and efficiency of the profession. Given that required standard, the Association could break the vicious state of affairs in which supervising architects were still called technical assistants.

COAL BOARD NEGOTIATIONS

Another speaker congratulated the Association on having called the meeting, and he thought the ABT had a good opportunity to go forward on salaries because its negotiations with the National Coal Board had set a standard for public authorities. A standard which was acceptable to the Coal Board should be acceptable to any other organization, publicly owned or privately owned. The speaker hoped the Coal Board scale would form a basis for the final ABT scales shortly to be discussed. The Association should announce that it was prepared to negotiate for the profession generally on that basis where the salaries were below it.

The Coal Board level was not high, but it would form a subsistence level on which the ABT could build.

ESTABLISHMENT

Another problem, apart from that of salaries, was that of establishment. It was possible to fix a salary scale, but local authorities were very good at wriggling out of paying it. Local authorities had a scale of salaries, which was a miserable enough scale, but they did not even pay as much as that; a qualified architect, who ought to be on APT V was often to be found on APT III because there was no room for him in the establishment at the higher figure. Unless the Association could break this ring it was no use getting a better scale of salaries; it was just as important to break the establishment ring as to fix the salary scale.

This last point was taken up by another architect, who said that the problem of breaking the establishment ring was an old one. The duty of showing where an architect was needed was one which the RIBA carried out, maintaining and improving the status of the architect so that there was no doubt about it. It was only on the basis of status that the ring would be broken.

WHAT THE ABT HAS ALREADY DONE

Mr. Shrosbree, the secretary of the ABT, gave some examples of "trade union" work already done by the ABT.

Mr. Shrosbree, the secretary of the ABT, agreed that the Association had established the rates for the National Coal Board. If architects looked at the Health Service agreement—the ABT were represented on the Committee—they would find a similarity with the National Coal Board agreement. It was not quite as good as they were able to get with the Coal Board, but the Coal Board scales were in the minds of the trade unions and the employers while the Hospital Board scales were being negotiated. Both agreements provided for architects, surveyors and engineers, and, indeed, clerks of works, and, whether one liked it or not, one must recognize that this was the sort of grouping which employers chose when discussing salary scales. It was the grouping of all the professional technical people who were serving the client.

STAFF DESIGNATION

The ABT had already done something in the question of establishment raised by one speaker. They were doing something all the time. Under the Coal Board agreement every qualified architect was called an architect and every unqualified assistant was called an architectural assistant. The principle had been followed in the Health Service. Whenever he negotiated with a local authority for a Department or substantial part of a Department, Mr. Shrosbree always tried to get the authority to designate their staff correctly. There had been one or two disappointments because authorities said: "We have to be very careful, for we have the engineer's department," but if everyone got together on the subject the difficulty would quickly be cleared up. There was an Act of Parliament which defined the people who could call themselves architects, but, unfortunately, there was nothing to prevent an employer from ignoring the fact that a man was an architect. The position would be improved only by architects' own efforts.

NEGOTIATIONS WITH LOCAL GOVERNMENT

Mr. Shrosbree went on to say that he had been asked whether the ABT could negotiate in local government for architects, surveyors and engineers and under what conditions. There was a National Joint Council which recommended the salary structure, fixing the minima and maxima for the various grades—I to X.

They also said how certain people, up to the newly qualified architect, should be graded. From there, the negotiations took place with the individual authorities; it was a question of establishing the grades for architects with a little responsibility right up to the group leader. At that point ABT could and did negotiate for local government staffs. A few months ago he had been in the North of England doing that.

TOO MODEST

They put forward a comprehensive establishment with designation for every member of the staff above the newly qualified man. After a long battle, the ABT got quite an improvement. The matter was not yet settled, because the authority would not accept the designation. The ABT were, in fact, too modest; they could show successes in negotiations over the years. They were not on the National Joint Committee and they had no say in whether grade I started at £10 or £100, but they had a say with the individual authorities about where the qualified people were to be placed in those grades.

ABT MUST BE BUILT UP

The meeting had not been called to tell the RIBA how to do its business, Mr. Shrosbree said; the ABT had an official channel to the RIBA through their representatives on the Council, and they took advantage of it. They tried to conduct their relations with the RIBA in that way. At the moment the majority of seats on the National Joint Council were held by NALGO. In addition, there were representatives from the provincial and district councils. By the overwhelming weight of the clerical and administrative people in local government, all those seats were held by NALGO. At the end of August 725,000 people were employed in local government. If the ABT included all architects, engineers and surveyors they might total 50,000. When he was asked why the ABT did not try to get a seat on the National Joint Council, he asked whether architects, surveyors and engineers wanted one poor soul sitting on a committee of 50 or 60, trying to put forward a sectional point of view when he would be outvoted by his clerical and administrative colleagues whenever it suited them. What they had to do was to build the Association up to 100 per cent. of the potential 50,000—not to have them split among various organizations—and then they could go to employers and tell them that the existing council no longer represented those technical people and to ask for their own, separate machinery, as had been done with the Coal Board and the Health Service.

The ABT did not want to be a little cog in a very big wheel. They wanted to work independently for the architect, the engineer and the surveyor.

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The Architects' Journal for December 17, 1953 [749]

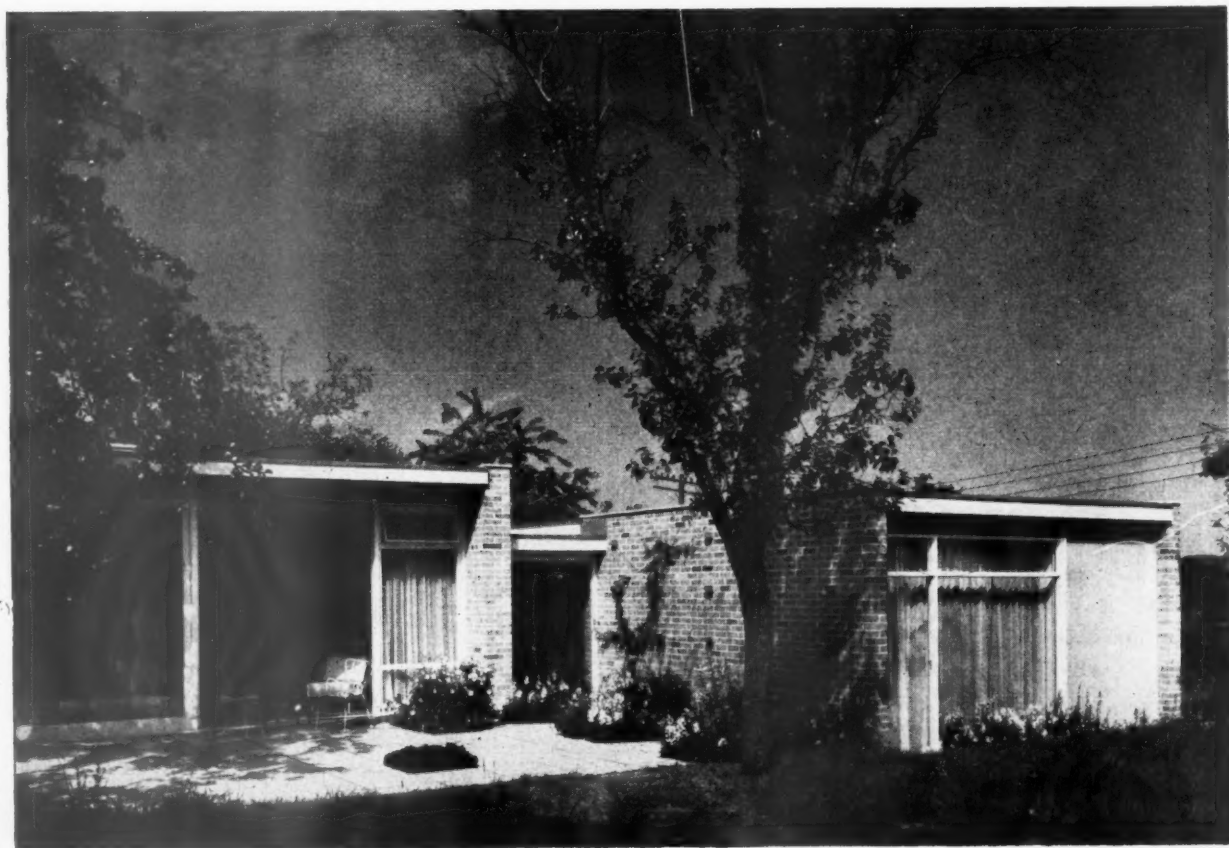
HOUSE

at OTHAM, near MAIDSTONE, KENT

designed by BRIAN PEAKE

The site of this single-storey house consists of an orchard of about 1 acre in the centre of a small village. The ground on the east side slopes downwards towards a lane which is approximately 5 ft. below the level of the site and is separated from it by a steep bank and dense hedge, thus providing a considerable degree of privacy. There is an attractive view over a valley and towards the Pilgrim's Way to the north-east. The house has been planned and placed on the site so that as many rooms as possible could have this view and a sunny aspect.

The house from the south.





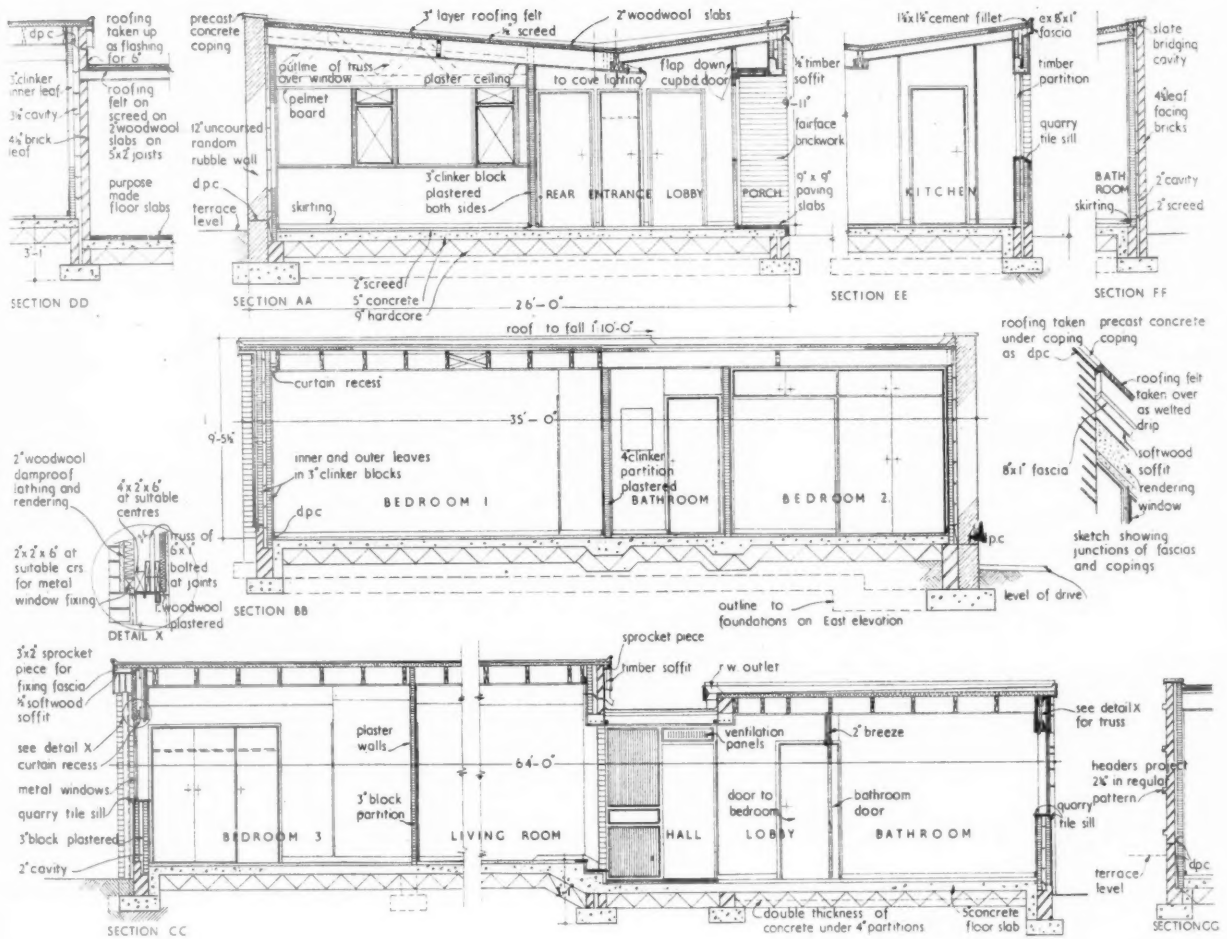
Left, the garden terrace and south wall of the living room. The large sliding door, which is illustrated as a Working Detail in this issue of the JOURNAL, is double glazed. Below, the main entrance on the north facade. The wall on the left is of Kentish Ragstone (from a quarry 2 miles away) and on the right is pale blue-grey cement render on clinker blocks.

HOUSE

at OTHAM, KENT
designed by BRIAN PEAKE

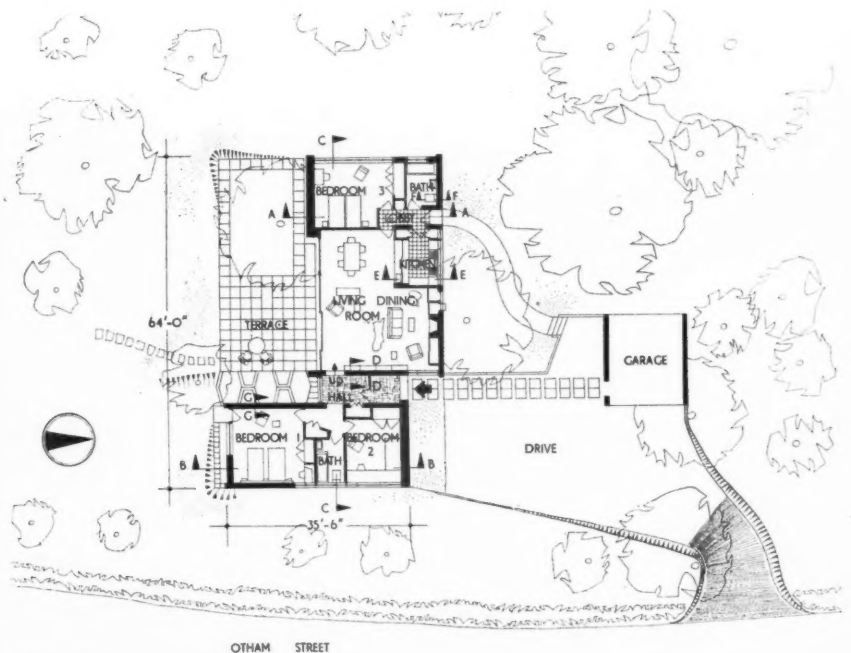
GENERAL.—The living room has full height glass for the whole of its southern wall, consisting partly of a double-glazed sliding door of special design. The terrace, which faces south-west, is flush with the living room floor so that trolleys, etc., can be easily wheeled out. The terrace is protected on the east by the projecting bedroom wing. In this wing are the main bedroom and second bedroom, which is also used as a dressing-room-study. The guest bedroom on the west side of the house can also be used for a living-in servant. Walls are of cavity construction, with an outer skin of multi-coloured bricks and an inner skin of clinker blocks. Roofs are of timber construction covered with 2-in. woodwool, screed and roofing felt with white spar finish. Roof slopes are seen internally and in the living room this increases the apparent size of the room. The main





Sections and details [Scale: $\frac{1}{4}" = 1' 0"$ and $\frac{1}{2}" = 1' 0"$]

Below, the main entrance porch, which is paved with random, multi-coloured marble.



Plan [Scale: $\frac{1}{32}" = 1' 0"$]



HOUSE

at OTHAM, KENT

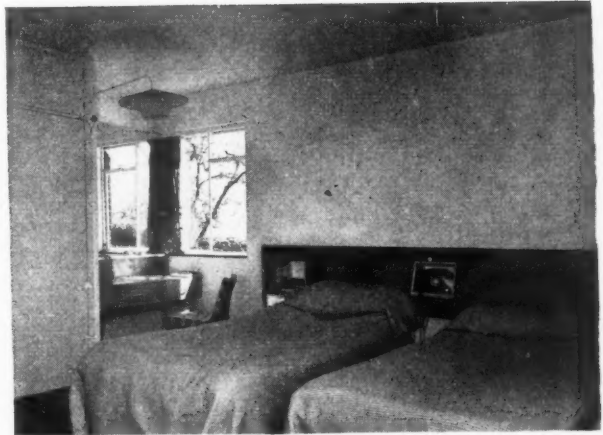
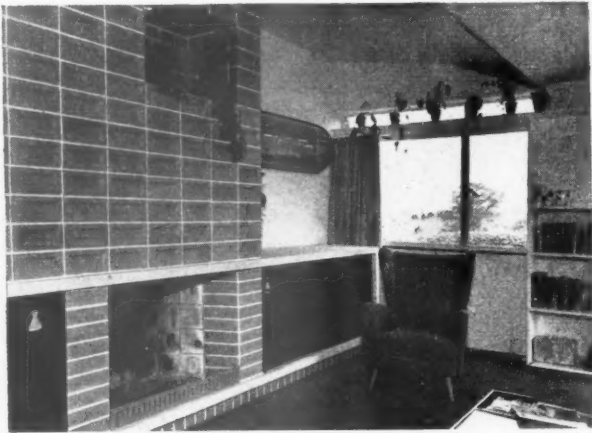
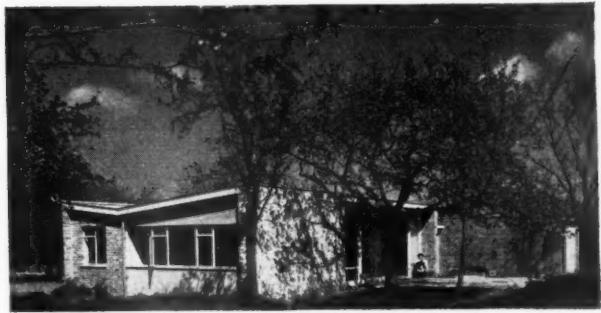
designed by BRIAN PEAKE

part of the living room ceiling is finished with V-jointed insulating board, which provides an interesting pattern and has sound-deadening and insulation properties. Heating, hot water, cooking and refrigeration are by electricity, which was chosen for cleanliness and the minimum of attention. Heating is by embedded wires in the floor screed and is thermostatically controlled, being left switched on permanently, winter and summer. Water heaters and towel rails in kitchen and bathrooms are also thermostatically controlled and there are 12 thermostats in the house in all. It has been found

Top, part of the living room. Extreme left can be seen the fireplace in the north wall. In cupboards beside this fireplace are two large tipping metal hoppers for coal and wood, which are filled from outside. The fireplace was illustrated as a Working Detail in the Dec. 3 issue of the JOURNAL. Above left, looking southwards on to the garden terrace from the living room. Above, dining area on the west side of the living room.

that this type of heating gives a degree of comfort far in excess of normal radiator central heating. The cost of the house, exclusive of furniture, fittings and landscape work, was just over £5,000. The general contractors were G. E. Wallis & Sons, Ltd. For sub-contractors see page 768.

Right, from the south-west. The large window left is in the guest bedroom. Below, the living room fireplace. Below right and bottom, the owner's bedroom. The padded bedhead fitting was designed by the architect.



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PETROL STORAGE, DEPOT

in WESTGATE CARR ROAD, PICKERING, YORKSHIRE

designed by BOISSEVAIN and OSMOND

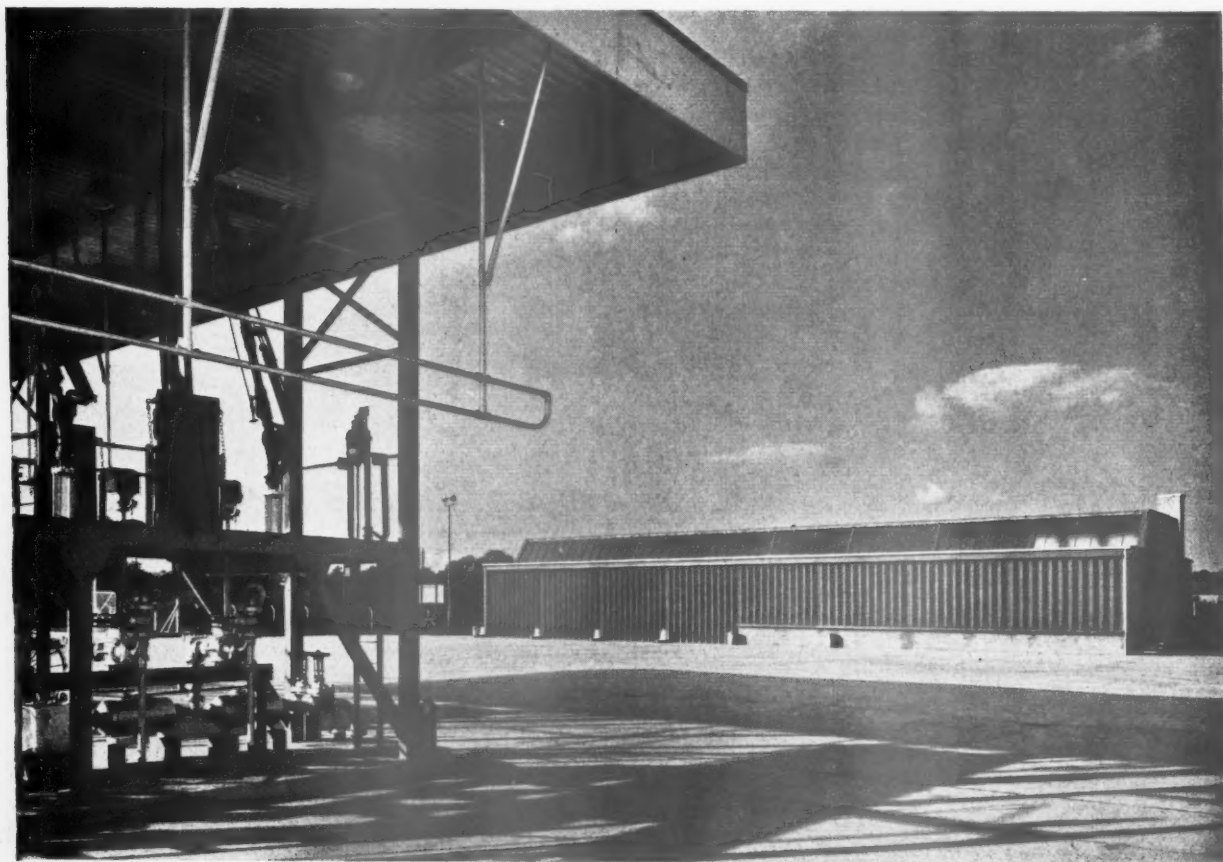
consulting structural engineers, OVE ARUP and PARTNERS

installation layout, SHELL-MEX and B.P. LTD.

quantity surveyors, WILSON, COLBECK and PARTNERS

The Pickering Depot is the first of a number of new distribution centres to be built, as part of a scheme, by Shell-Mex & B.P. Ltd. for reducing operating costs and increasing efficiency. The depot can load six vehicles simultaneously from tankers with a total capacity of 350,000 gallons. The service building is for maintenance and the storage and bottling of oil products. The contract price, exclusive of piping and oil installation, was £47,000.

A filling bay and the service building from the south-west.



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WORKING DETAIL

WINDOWS: 18

WINDOW WALL: HOUSE AT OTHAM

Brian Peake, architect



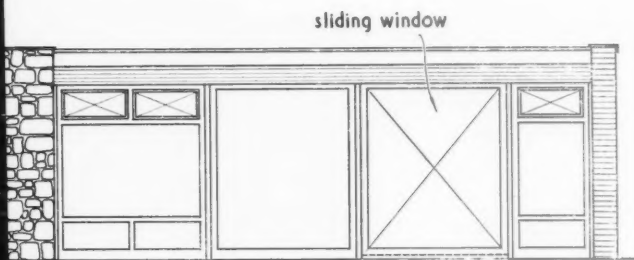
The timber roof is carried on coupled 7-in. by 2-in. joists which span between the 5-in. by 3-in. hardwood posts. These stand in lead shoes which are bedded in the screed. The large windows are double glazed throughout and one window only slides open. This sliding panel rides on eight pulley blocks which, grouped in pairs, are built into the bottom stile and run in a rubber-surfaced track let into the floor.

WORKING DETAIL

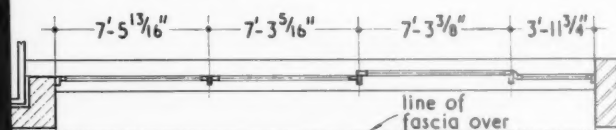
WINDOW WALL: HOUSE AT OTHAM

Brian Peake, architect

WINDOWS: 18

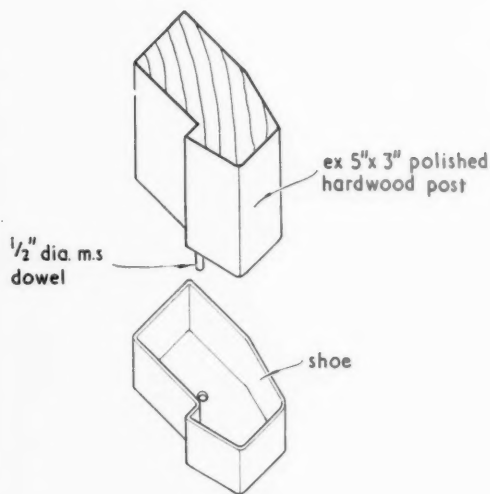


elevation

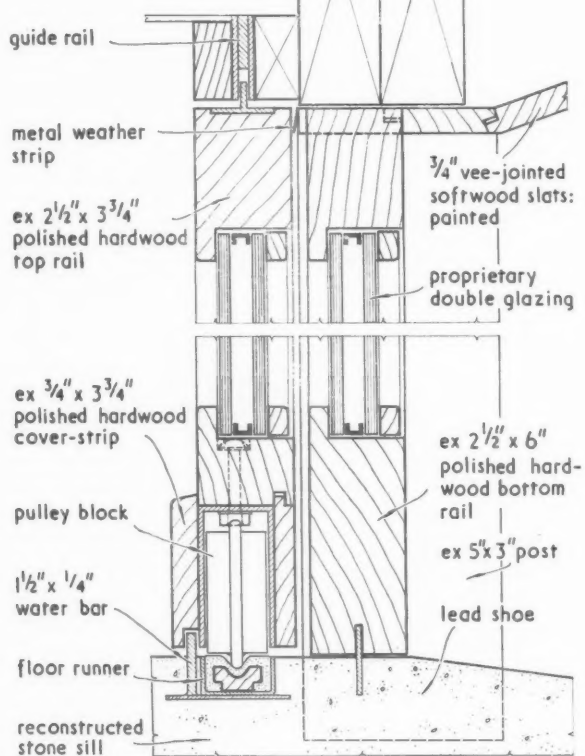


plan

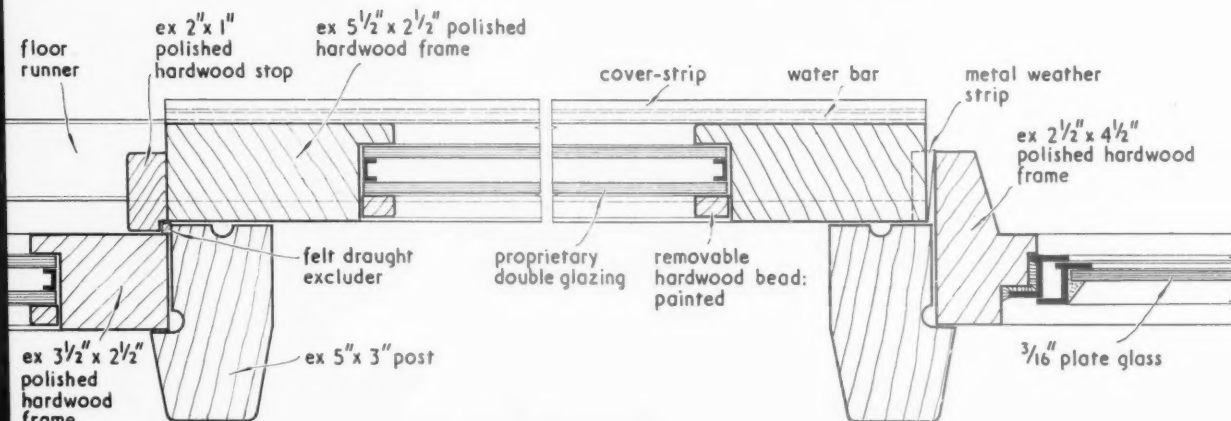
WINDOW WALL. scale 1/8" = 1'-0"



SKETCH OF LEAD SHOE.



SECTION THRO' SLIDING WINDOW-OPEN POSITION. scale 1/4 full size



PLAN OF SLIDING WINDOW. scale 1/4 full size

WORKING DETAIL

COVERED WAYS AND CANOPIES: 10

CONNECTING BRIDGE: HOSPITAL IN LONDON, S.W.12

Devereux and Davies, architects: Clarke, Nicholls and Marcel, consulting engineers



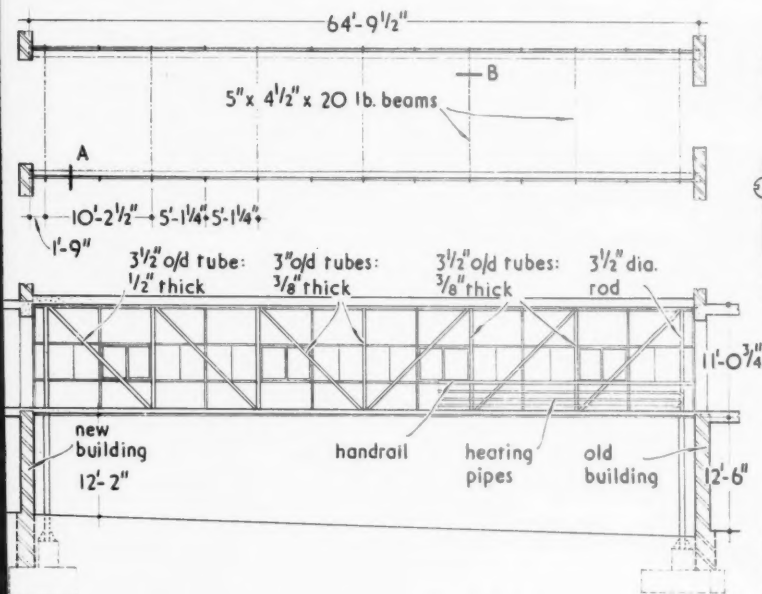
The two trusses which comprise the structural framework of the bridge were shop fabricated (by a firm of shipbuilders) and were each transported to the site in one piece. The 5-in. by 4-in. cross joists were then bolted to cleats in the upper and lower chords and the two reinforced concrete slabs were placed. These are anchored at the new building end and are freely supported in the old building. There is a camber of $\frac{1}{4}$ in. over the full span. Since the bridge receives full lateral support from the buildings at both ends the supporting columns (which are square on plan) carry the vertical load only and require only a relatively light fixing to the bridge.

WORKING DETAIL

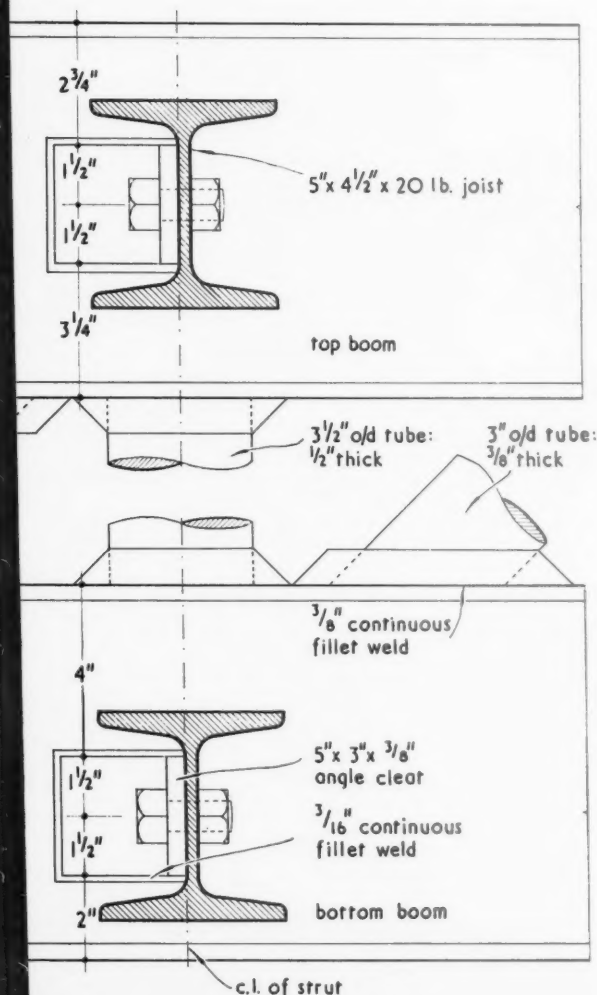
COVERED WAYS AND CANOPIES: 10

CONNECTING BRIDGE: HOSPITAL IN LONDON, S.W.12

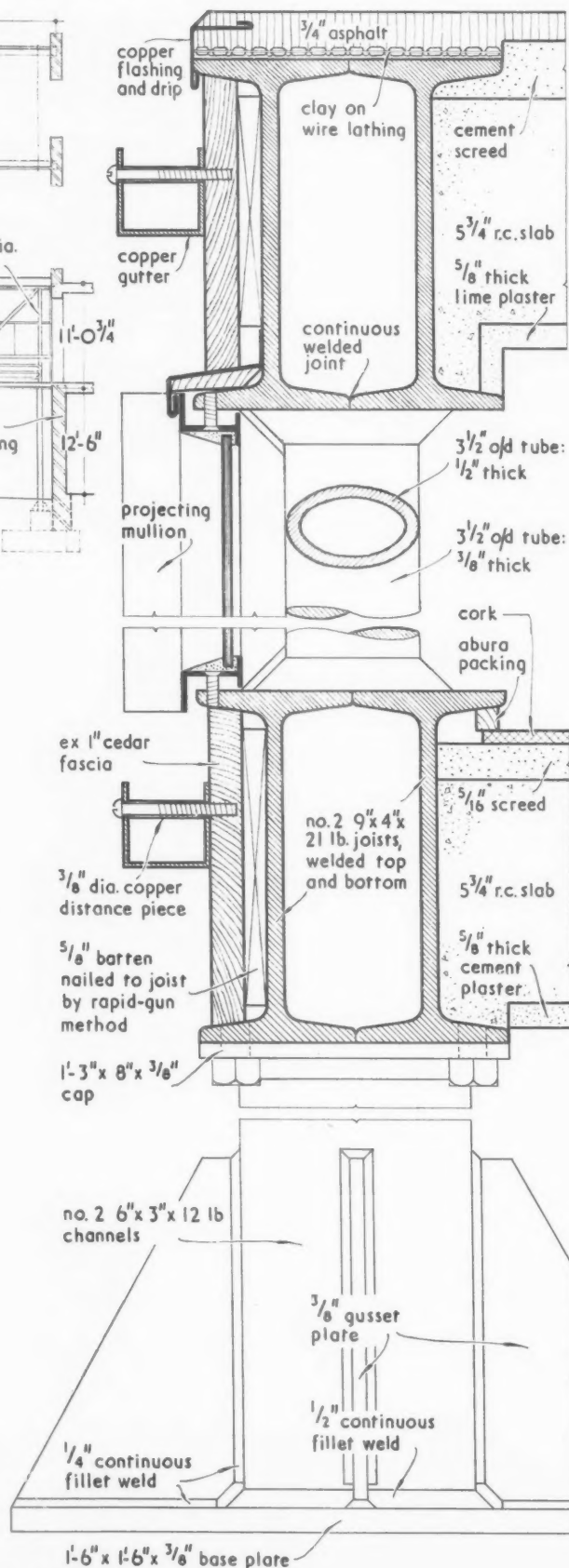
Devereux and Davies, architects: Clarke, Nicholls and Marcel, consulting engineers



PLAN AND SECTION OF BRIDGE. scale 1/16"=1'-0"



SECTION SHOWING STEELWORK AT B. scale 1/4 full size



SECTION AT A. scale 1/4 full size



STORAGE
TANKS

new fence



Site plan

closure
piece
between
steelwork
& glazing

art stone
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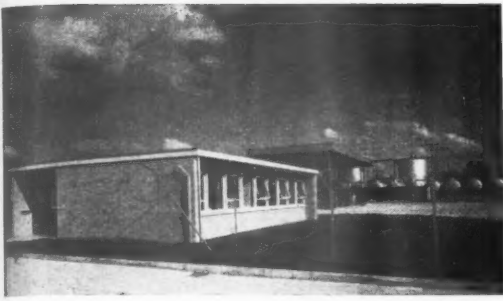
Section A

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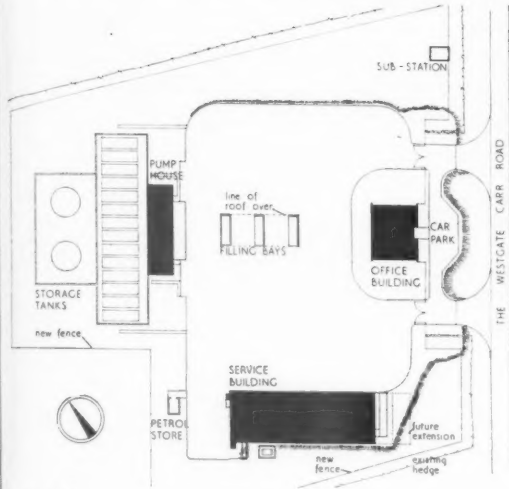
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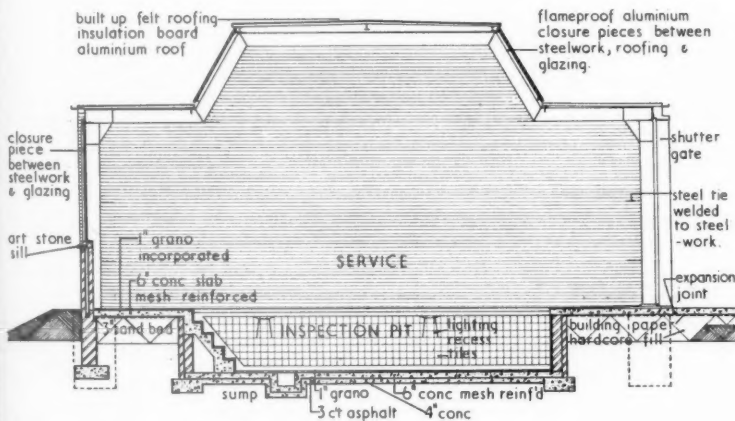
Ground fl



Above left, view from the west, with the office block on the left. Above, the washing bay in the service building, looking towards the offices. This bay is tiled to a height of 8 ft. and has a floor of 1-in. grano on 6-in. r.c. slab. Under the north-west corner of this building is the boiler house.

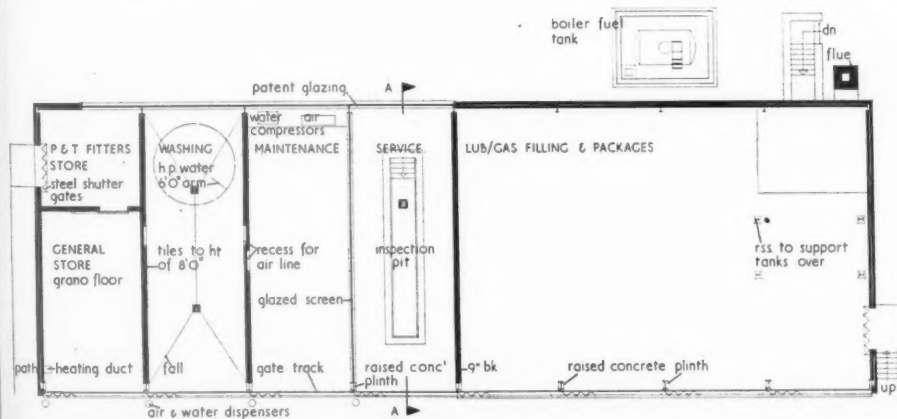


Site plan



Section A-A [Scale: $\frac{1}{4}'' = 1' 0''$]

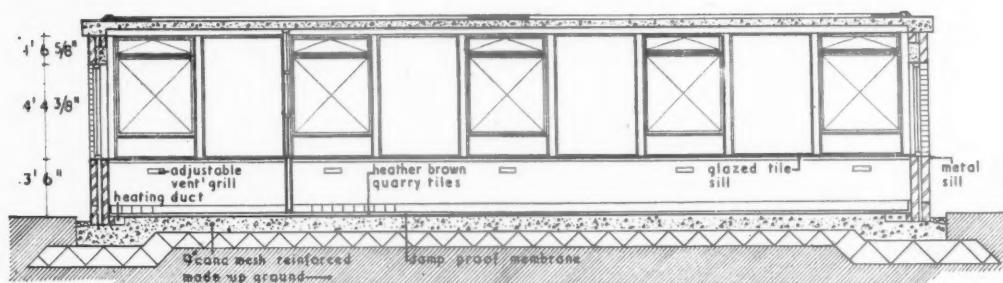
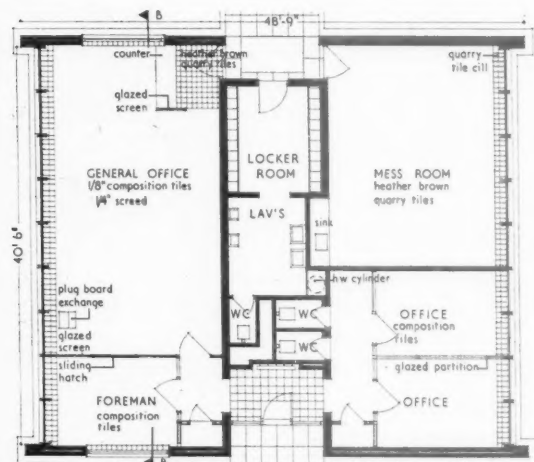
GENERAL.—The disposition of the buildings on the site was decided mainly by the most direct layout of pipelines from the tanks through the pump house to the filling bays, and also by the needs of a simple traffic circulation. The office block accommodates clerical staff, Depot Supervisor, H.M. Customs Officer, mess room, toilets and lockers. The pump house contains 12 motor-driven centrifugal pumps delivering 250 gallons a minute and controlled by push-button switches on the filling bays, where the delivery is automatically recorded. The General Contractors were George Longden & Sons Ltd. For sub-contractors see page 768.



Ground floor plan, service building [Scale: $\frac{1}{4}'' = 1' 0''$]

PETROL STORAGE DEPOT

at PICKERING, YORKS
designed by BOISSEVAIN
and OSMOND

Section B-B [Scale : $\frac{1}{4}" = 1' 0"$]

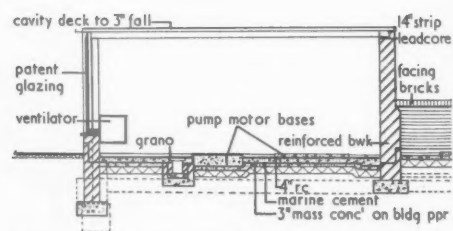
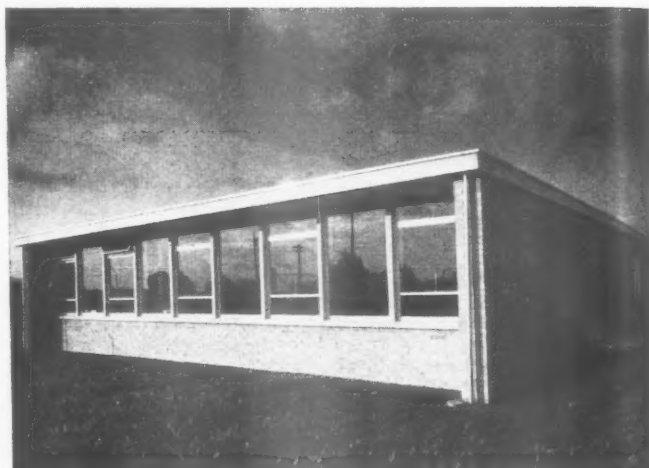
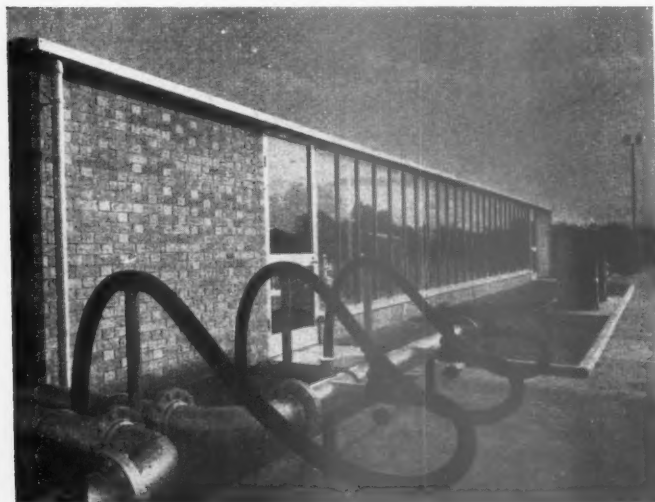
Plan of office block [Scale: $\frac{1}{8}" = 1' 0"$]

Above, right, the office building, and, right, the general office. The windows are steel, the mullions are pre-cast concrete and the glass 3/8-in. plate. The opening lights are centre pivoted.

PETROL STORAGE DEPOT

at PICKERING, YORKS

designed by BOISSEVAIN and OSMOND



Cross section through pump house [Scale : $\frac{1}{12}'' = 1' 0''$]

Left, the pump house from the north-west. This building has 6-in. by 5-in. r.s. stanchions supporting r.s.j., at 10 ft. 2½ in. centres. The roof consists of metal decking and is covered with 2-ply felt and granite chips on ¾-in. insulation board. The floor is covered with 1-in. gramo over two layers of concrete, which are separated by marine cement. The wall of the pump-house seen in this photograph was illustrated as a Working Detail in the JOURNAL for November 19.

TERRACE HOUSES

at BAUGHURST, HAMPSHIRE

designed by ERIC CHICK

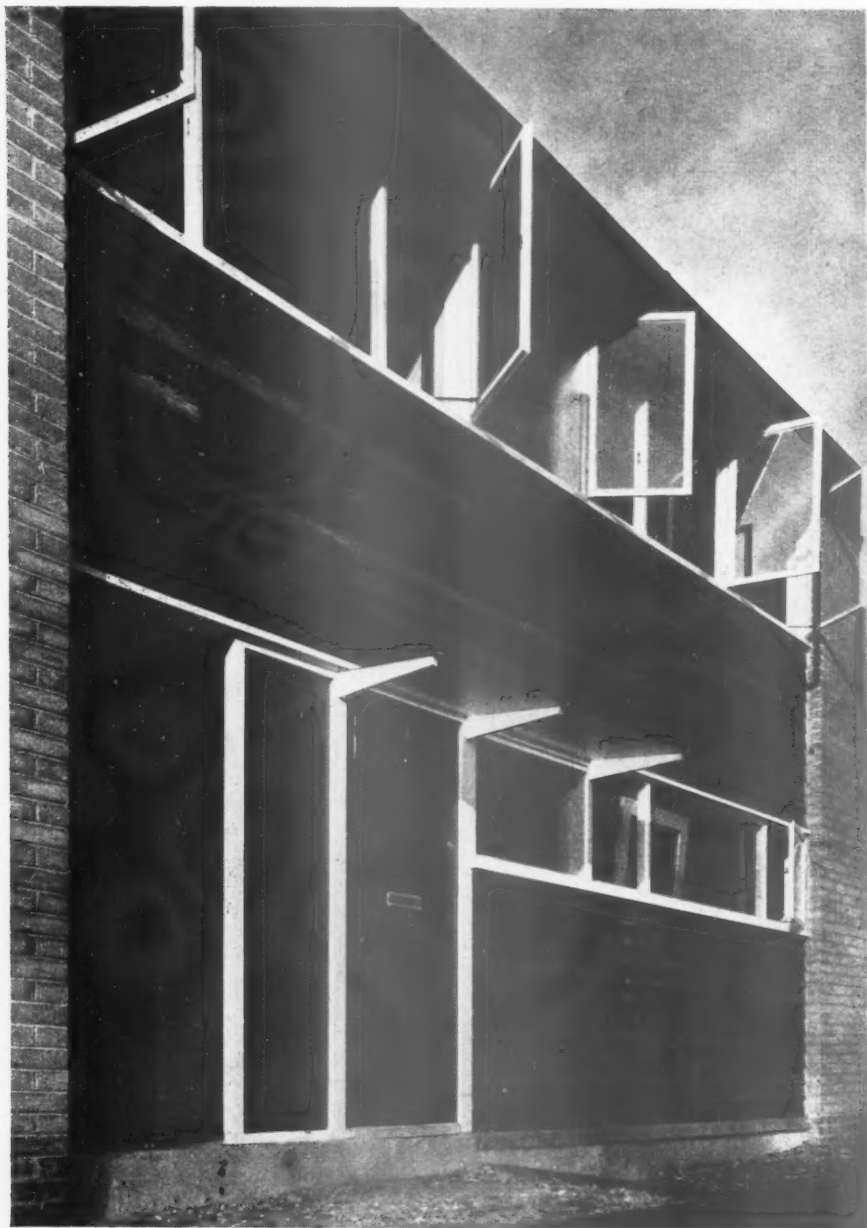
consulting architects, POWELL and MOYA

quantity surveyors, DAVIS, BELFIELD and EVEREST

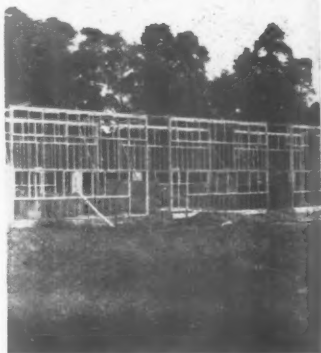
The prototype pair of "Highworth Houses," as they are now called, were completed at Highworth, near Swindon, in 1951, and were illustrated in the JOURNAL for November 22, 1951. Shortly afterwards, on an adjacent site, a terrace of four houses was built to the planning standards of the MOHLG circular 38/51 and these houses are illustrated on page 760. Twenty similar houses, in terraces of four, have been completed for Kingsclere RDC and the terrace of eight houses seen on this and the following pages were also built for this Council.

Part of the terrace of eight houses from the west.





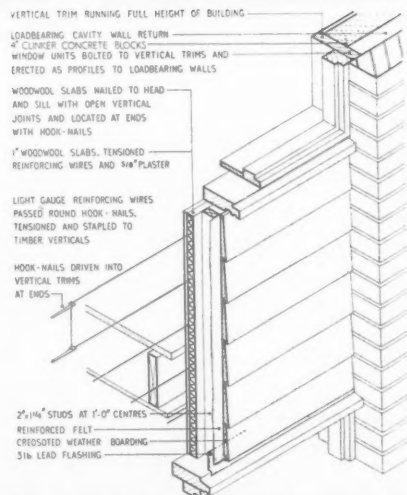
Left, from the south. Extreme left of picture, stores entrance and centre, the main entrance. Walls below windows are faced with creosoted weather boarding. Below, an early progress picture of the apron wall units in position.



TERRACE HOUSES

at BAUGHURST, HANTS
designed by ERIC CHICK
consulting architects, POWELL
and MOYA

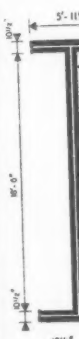
GENERAL.—These houses are designed complete with full working drawings and bills of quantities, and as specialized techniques are not required they can be built by a contractor on the terms of any normal building contract. For private individuals, pairs, terraces and single houses are also being erected in various parts of the country. A single house is illustrated on page 760. Work at Baughurst was begun in June, 1953, and completed in early November. It has been found that the minimum figure of 1,565 man-hours given in a recent report for traditional brick-built council houses can be reduced by up to 23 per cent. The contract price for the eight houses was £9,200 or £1,150 per house, including site works and normal external services. Part of this reduction in cost and time



Typical detail of non-load bearing wall, first floor level [Scale: 1/4" = 1'-0"]

Right, from the south-east with double tiles.

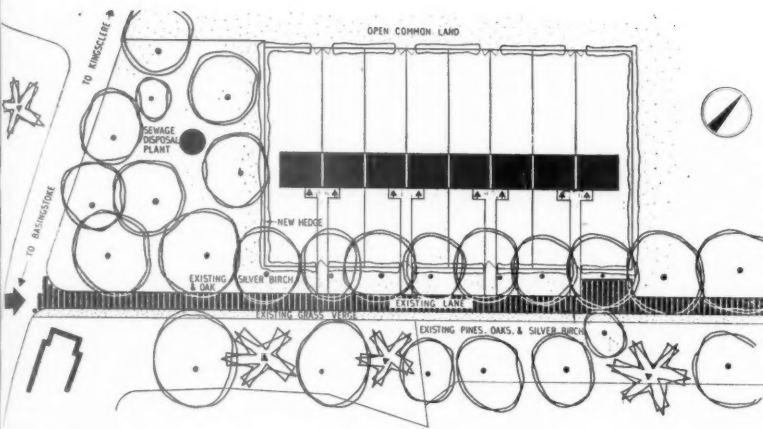
Site plan



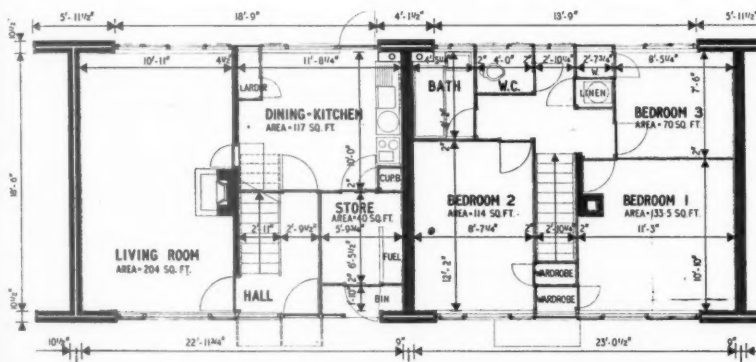
Typical floor plan
[Scale: 1/4" = 1'-0"]

can be attributed to the reduction from about 190 tons weight of materials in the average brick-built house to 120 tons, a difference of over one-third. The site is an isolated one about five miles from Kingsclere. The ground is level and the site is served by an existing country lane. On the other side of the lane is a wood of mixed conifers and deciduous trees, which form a dark background to the line of houses.

CONSTRUCTION and FINISHES.—The houses were designed to use traditional construction in its most simple form where it is economical, and to ignore normal traditional methods of construction only where non-traditional methods save time and money. End walls, party walls and ground floor intermediate cross walls are built of normal load-bearing blocks and carry all the loads. Foundations are economic as they are required only under the cross walls. The ends of the party wall and end walls have returns to give them additional stiffness. The first floor is of timber joist construction with all joists carried on the cross walls. Herring-bone strutting has been replaced by flexible metal reinforcing formed of two strands of galvanized wire twisted together, the use



Site plan



Typical ground and first floor plans

[Scale: $\frac{1}{8}" = 1' 0"$]

Right, part of the terrace from south-east. Roofs are covered with dark brown interlocking tiles.





TERRACE HOUSES

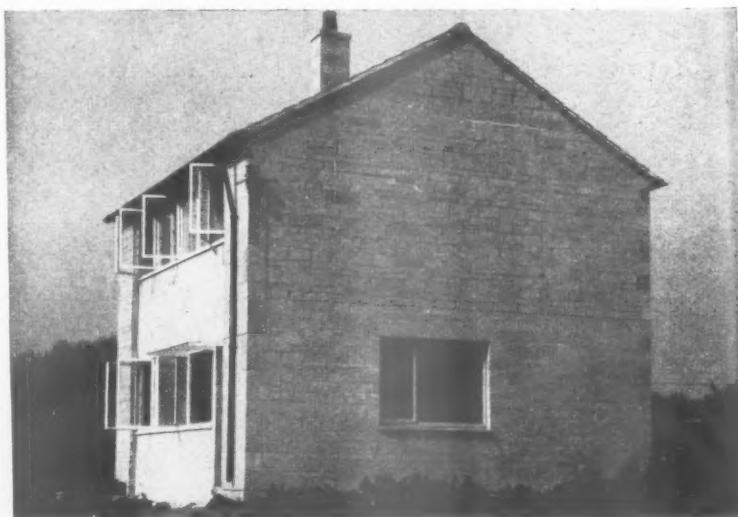
at BAUGHURST, HAMPSHIRE
designed by ERIC CHICK
consulting architects, POWELL and MOYA

of which has enabled the joist sizes to be reduced by 25 per cent. The roof is of traditional construction except that the weight is transferred to the party walls by the use of trussed purlins spanning from wall to wall. External walls are non-load-bearing and consist merely of strips below ground floor and first floor windows. In the construction of these areas of wall the prefabricated methods used allow alternative materials to be employed. In the houses at Baughurst the construction was as follows: Woodwool slabs were placed in position and held by specially designed hook nails which are driven into the surrounding frame. Light gauge reinforcing wire is then passed over the hook nails and across the face of the slab in a continuous length. When this wire is in position the nails are driven in further to tension the reinforcing, which is then stapled at convenient centres to the woodwool slabs. The faces of the slabs are then plastered and the wall then becomes extremely strong and rigid and acts, in effect, as a reinforced-concrete beam, but one which requires no shuttering. In the case of this rural site creosoted weather boarding has been applied as an external skin to give cavity wall construction. Partitions are reinforced in the same way and plastered. These partitions are anchored to structural cross walls or door frames and, although 1½ in. thick, have sound insulation approximately

equal to that of lightweight blocks, plastered both sides, and increase the effective floor area of the house by about 10 sq. ft. Partitions of this type have now been in use for over 5 years and in no case has any crack been observed. Windows and doors are concentrated into one large frame which is assembled on the floor slab by bolting the ground and first floor window units to the jambs. The complete assemblies, when erected, form jigs for the load-bearing walls. Bricks are "Cotswold" colour concrete bricks, the roof finish is of dark brown interlocking tiles, windows are timber, painted, and rainwater goods are cast iron.

The general contractors were Holland & Hannen and Cubitts. For sub-contractors, see page 768.

Above, terrace of four houses at Highworth, Wilts., built on an adjacent site to the prototype semi-detached pair illustrated in the JOURNAL for November 22, 1951. Below, single house for a private client completed in 1953. The end walls are of stone and the panels below windows are rendered.



TECHNICAL SECTION

We have had several requests from readers asking us to publish in the Technical Section more articles dealing thoroughly with *detailed* aspects of building construction. The editors have, therefore, commissioned a series of articles of this type, the first of which appeared last week (it dealt with sub-floor finishes for thermoplastic floor tiling). The remainder of the series will be published, at intervals, during the coming year.

This week, however, we publish an article of a completely different type—an article dealing with the non-architectural background to an architectural problem; the problem, in this case, being the design of buildings in which music is performed. Before the architect can design any building he should know a good deal about the activity which will take place in the building. In this week's article, H. Creighton deals with the various desirable attributes of musical tone which an auditorium should make possible.

This is the third article of this type that we have published this year; the other two—one on secondary modern education (March 12) and one on early ambulation in hospitals (Oct. 1 and 15)—having been favourably received by readers, we shall be publishing further "background articles" next year.

This week's
special article

22 SOUND INSULATION & ACOUSTICS musical tone and acoustical design—part I

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year.

In the first half of his article, which appears this week, H. Creighton defines the terms which are used to describe musical tone. He points out how, before the building of concert halls, i.e., before the 19th century, the various buildings used for musical performances each had a limited response to music which tended to make them each suitable for only one type of music, whereas the concert hall is intended to provide suitable conditions for a variety of forms of musical expression. In the second half of his article, which will appear next week, Mr. Creighton deals with the various scientific attributes of sound which correspond to the aspects of musical tone which he defines below. In a further article Mr. Creighton will show how the design of the concert platform can influence the acoustics of the auditorium.

The bathroom and the broadcasting studio are symbols of a dual relationship between music and architecture. Psychologically, singing in the bath is a response to highly stimulating acoustical conditions, and the effect of the performance is governed by these condi-

tions, which favour some kinds of musical expression and some kinds of tone more than others; *bel canto* is more effective in the bathroom than *parlando*, so that Signor Gigli is likely to feel more at home there than M. Maurice Chevalier, and if Susanna were, appropriately,



"The earliest origins of Western Music can be traced back to the recitation of the liturgy in very large basilican churches (above, S. Apollinare Nuovo, Ravenna), where the long reverberation made some form of musical intonation irresistible."—[Photo: Picture Post Library]

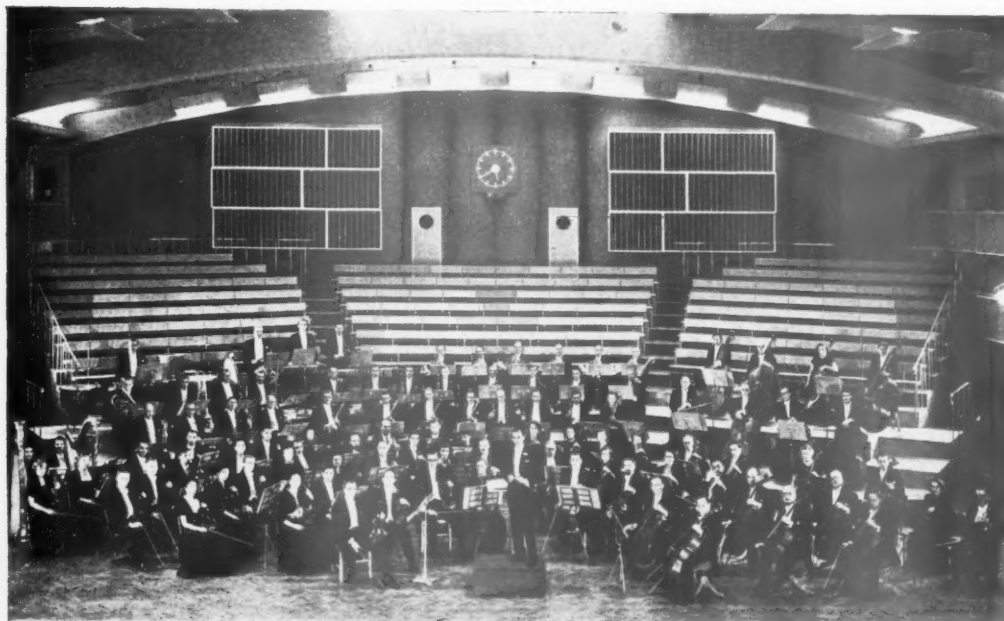
to run through her part in the bath she would be tempted to concentrate on the arias rather than the recitatives.

The "bathroom relationship," then, is that in which the building is dominant and imposes its conditions—which may, however, be very different from those of an actual bathroom—on the style of the music performed within it. This re-

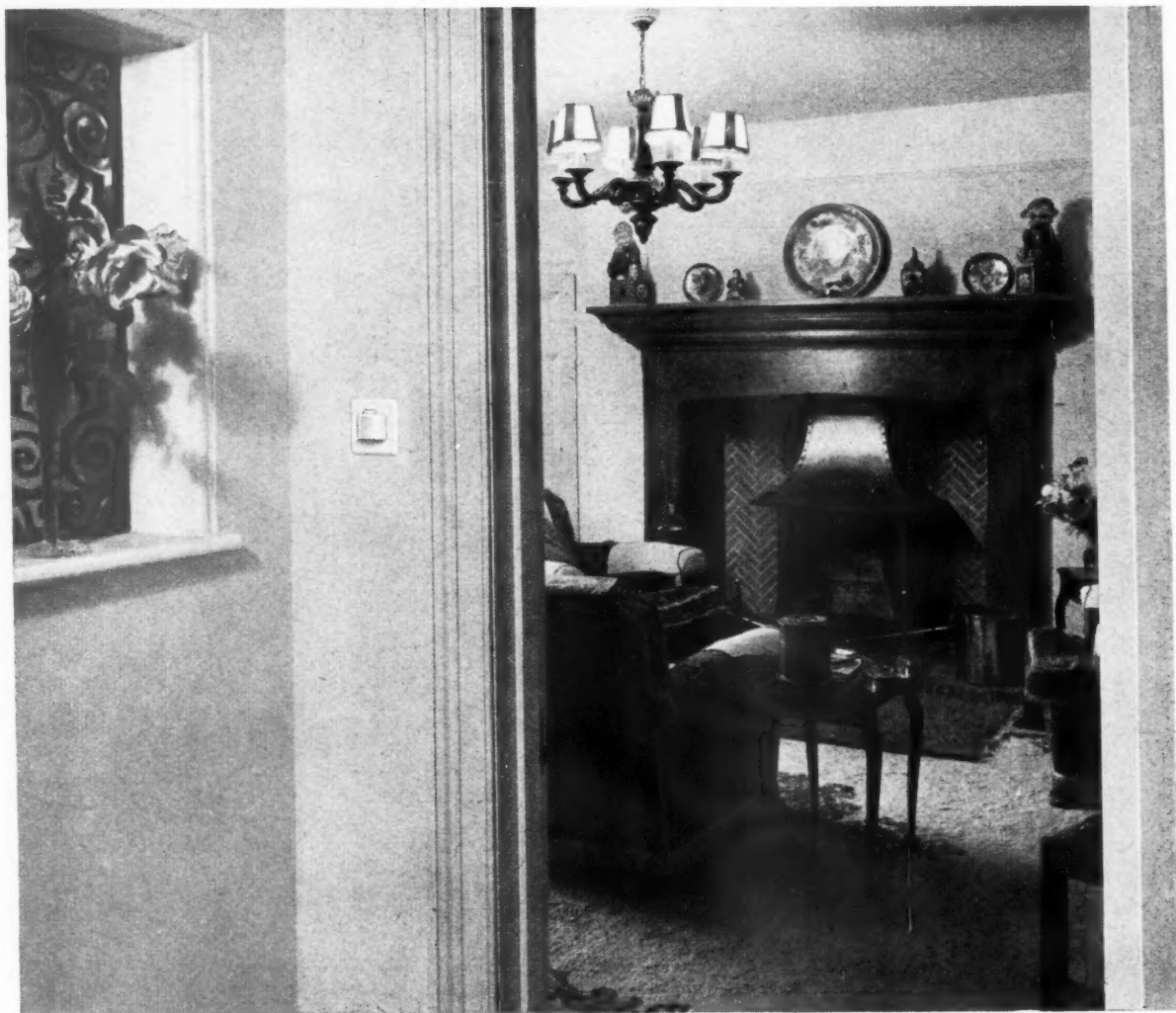
lationship is at the back of the whole development of western music, the earliest origins of which can be traced to the recitation of the liturgy in very large basilican churches, where the long reverberation made some form of musical intonation irresistible. Theatre, private house, and the open air also have their places in musical history and different styles were evolved appropriate to each.

The *raison d'être* of the studio, on the other hand, is precisely to be subservient to music, not to mould it, and its architectural qualities are almost totally irrelevant. The studio is, therefore, the extreme example of the type of building to which, for instance, the modern concert hall belongs. The concert hall, as such, is a comparatively modern type of building, the need for which arose when the earlier relationship between music and architecture dissolved, that is to say around the beginning of the 19th century. Until that time, music had its appropriate auditoria—church, theatre, salon—because it was written in styles which, consciously or unconsciously, had been moulded by the acoustics of those auditoria. The change was both a musical and a social one, and its result has been that this type of relationship has never existed for most music composed since Beethoven's time, because music is no longer conceived in terms of the acoustical environment of any particular building. On the contrary, music now claims dominance in the partnership, and demands that buildings be created to suit its own requirements, a step first taken in practice in 1876, by Wagner at Bayreuth.

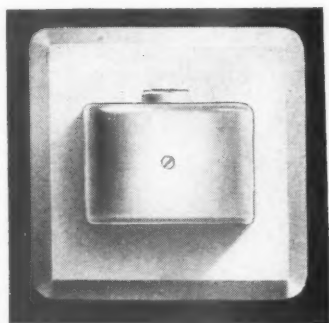
It is the task of architectural acoustics to discover how this demand can be



"The *raison d'être* of the broadcasting studio (left, a BBC studio; orchestra BBC Symphony; conductor, Sir Malcolm Sargent [copyright, BBC]), is to be subservient to music, not to mould it."



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satisfied and the task has its musical, scientific, and architectural aspects, physical science being the link between musical quality and architectural form. So far, the work carried out by acoustical specialists has chiefly been concerned with the discovery of techniques for controlling sound in buildings—the point where science and architecture meet. But, if further progress is to be made, more attention must be paid to the musical side of the problem so that designers may have a clearer conception of what they should aim at; it is with this part of the problem that this article is mainly concerned.

MUSICAL TONE

In the first place it is necessary to have some idea of what is meant by "good tone," and to realize that criteria relevant to acoustical design are subjective; they are founded on educated taste and judgment. There is, for example, no other means of defining "good acoustics" than by the analysis of buildings which are judged by reliable authorities to be good; similarly, in the matter of tone, the musician's (or listener's) verdict must be accepted as decisive, even though it may well vary from person to person or from time to time. However, the scientist who has to interpret the verdict is entitled to ask that the musician should define as precisely as possible, in musical terms, the various attributes of musical tone and indicate their relative importance.

An attempt to analyse in acoustical terms what qualities a listener requires of a musical performance necessarily omits some very important things—artistic interpretation, for one; and if we say, as a first generalization, that the music should be both intelligible and beautiful this does not imply any opinion on such aesthetic questions as whether the works, for example, of Schönberg can be held to satisfy either of these conditions. But clearly there is a rough sense in which the distinction is useful, and it also suggests that we may expect to find two classes of listeners, divided by the relative values which they attach to the intellectual and sensuous elements in music.

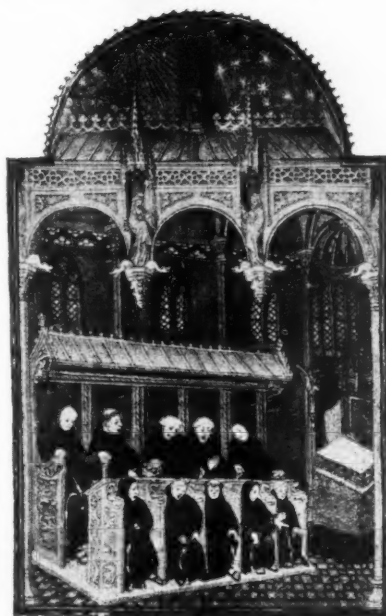
If the succession of notes and phrases which go to make up a piece of music is to be intelligible, tone must obviously be strong enough to be heard; a clavi-chord is inaudible to a large audience simply because it does not emit sufficient sound energy. On the whole, music is not performed under conditions which would give rise to this sort of defect if the environment were always absolutely quiet. It is more usual to find that soft passages are lost because of a high level of extraneous noise, and a low-flying aircraft can blot out even the fortissimo of a brass band. Instruments have to compete also with their own sound after it has been reflected, in the form either of general reverbera-

tion or of discrete echoes, though here there are gains to balance against the losses. These are some of the ways in which intelligibility can be lost, and they point to two criteria—loudness and definition.

LOUDNESS AND DEFINITION

In music, relative loudness—the range of possible dynamic effects from pianissimo to fortissimo—is more important than absolute intensity of sound, and the chief value of a quiet background is that it increases this range at the lower end. But absolute values are also relevant to some extent, because the tone quality of an instrument or voice varies with the strength of its output, so that "pianissimo" connotes not only a

The concert hall is a comparatively modern type of building. Until the beginning of the 19th century music was performed either in the open air or in buildings designed primarily or at least partly for other purposes, e.g., the church: right, monks singing in Divine Service (from an illuminated psalter); below, the Handel commemoration concert of 1784, held in Westminster Abbey.



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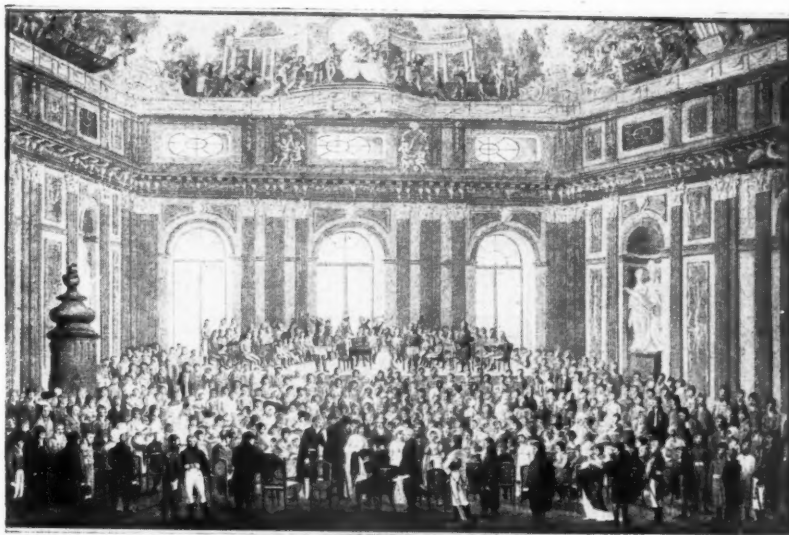
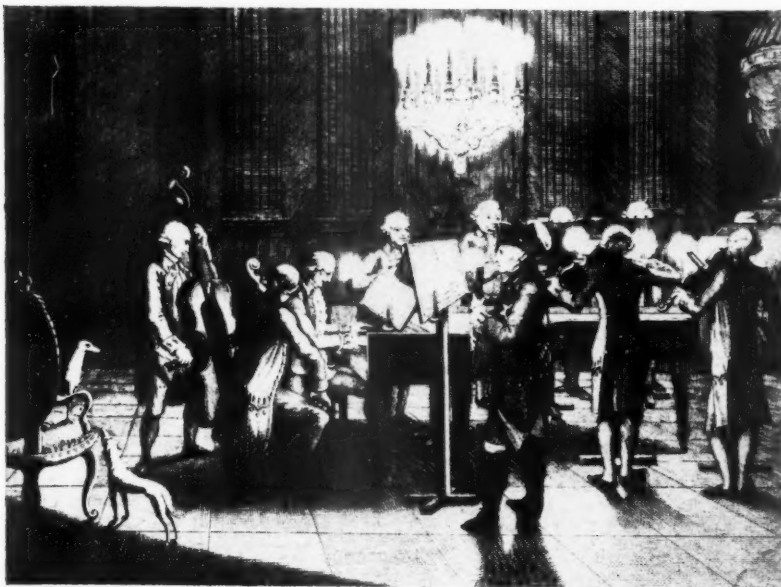
sound which is just audible but also tone of a certain quality. Apart from this, the general loudness produced by a large orchestra can reach a sufficiently high level for the sound to "shatter"—to lose its musical nature and become mere noise—an effect which is occasionally used deliberately, adding an element of physical sensation to hearing, but is usually unwelcome (nothing is more destructive of receptive listening than the fatigue which ensues when the normal fortissimo is too loud). On the other hand, when it is not loud enough, rapport between performers and audience is lost; sometimes in the Albert Hall one seems to be listening, so to speak, through the wrong end of a telescope.

Definition—clarity—is something more than loudness; music can be loud enough and yet confused. Clarity is that which "defines" the music in the sense in which an outline can define shapes in a drawing. Its chief contribution is to rhythm; it contributes to a lesser extent to melody and counterpoint, but scarcely at all to harmony. In so far as individual parts of a score must be heard clearly, "balance," which will be discussed later, is also involved, but more important, in so far as the clarity of individual notes is concerned, is tempo. For plainsong it scarcely arises; for Sir Thomas Beecham's performances of Rossini it is vital. The test of definition is rapid staccato passages, in which the notes should be like sparks flying from a grindstone, with the momentary rest discernible between them. Accurate and delicate playing at very fast speeds is more common now than it used to be, so that the value set on good definition has increased.

QUALITY AND FULLNESS OF TONE

We are on more difficult ground in discussing "beauty of tone." For instance, most people would agree that music sounds more "beautiful" in a good music room than on the radio, but wherein does the difference lie?

First, in the broadcast performance—and the acoustics of a room can have a similar effect—something of the quality, or tone colour, of instruments or voices, by which we distinguish one from another, is lost. The deliberate use of the tone of different instruments, singly and in combination, is the art of orchestration, and the evocative power of many pieces depends on the character imparted to them by the tone quality of the instruments for which they are written. For this reason we have seen of late the re-introduction of quite a number of obsolete instruments, the

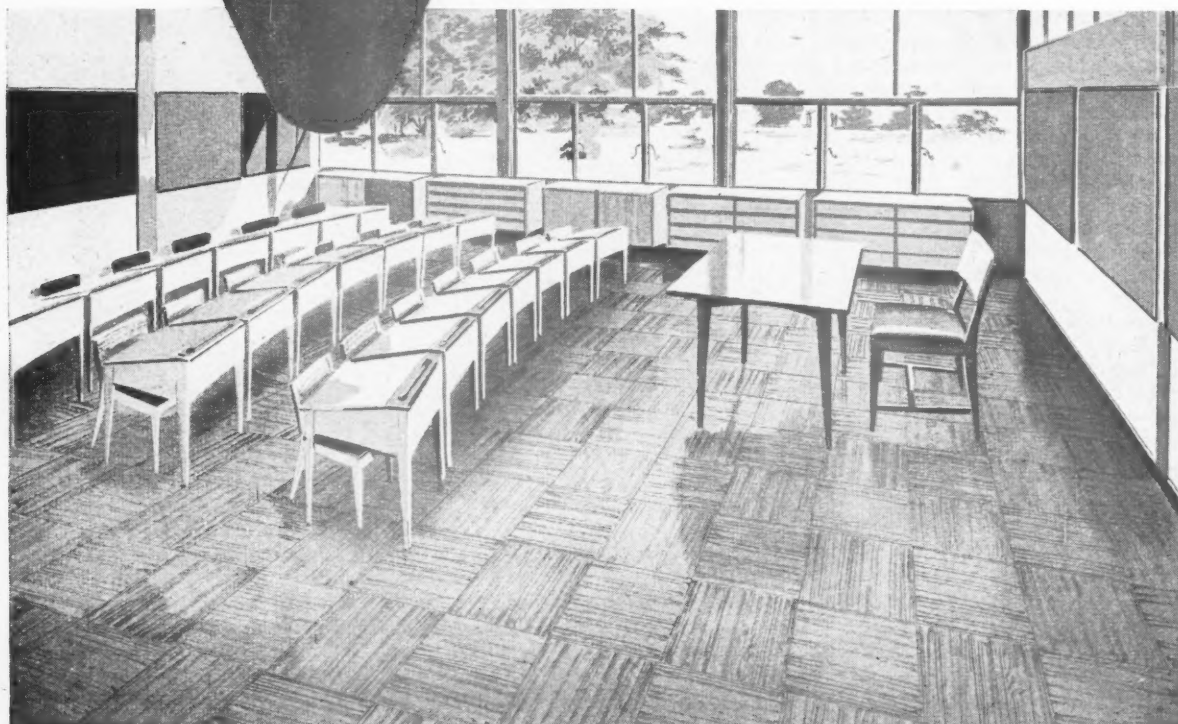


Musical performances in the 18th century: from top to bottom, in the salon—a chamber music recital with Frederik the Great, who was a noted amateur musician and patron of the arts, playing the flute; in the meeting hall—a performance of The Creation in a hall of the University of Vienna; in an opera house in Naples.



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value of which can be judged, for example, at a performance of the St. Matthew Passion Music when the parts for *oboi d'amore* and *oboi da caccia* are really played on these instruments.

There seems to be another attribute—easy to recognize but most difficult to define—which is the most necessary of all. It belongs as much to a single instrument or voice as to many, to a single note as to a phrase. Musicians usually term it "resonance," implying an analogy between the reaction of the room on the sound of an instrument and that of the resonating body of the instrument itself on the thin tone of string or reed. This use of the word is confusing to scientists, and best avoided, so we shall speak of "fullness of tone" and define it, loosely, as that "body" which the tone of an instrument can acquire when it is played in a room rather than in the open air, and which makes the former a more expressive vehicle for music. For listeners, fullness of tone implies a completeness of effect and a satisfaction in the mere sound of an instrument; for players it means, in addition, that tone is easy to produce without forcing. Fullness of tone is the most desirable acoustical property of a room, but its value is not the same for all kinds of music. For the kind of music which imitates the strident and percussive effects of the dance band, it counts for little; for choral music, especially unaccompanied, and for strings, it is all-important.

ENSEMBLE, BALANCE AND BLEND

So far, we have been considering tone in general with no particular source in mind, but there are special problems connected with orchestras, choirs, and other combinations which do not arise with soloists. Clearly, a correct relationship between the voices, both in time and in strength, is necessary. At first sight it would seem that faults in these respects—in ensemble and balance—can be attributed only to incompetent performance, but this is by no means true; the acoustics of the room can make correct performance easy, or so difficult as to be virtually impossible. For example, performers quite frequently complain that they cannot hear themselves properly or, even if they can, that what is heard by themselves or by the conductor does not necessarily correspond with what is heard by the audience. (These points will be dealt with more fully in a further article.)

If ensemble and balance are similar, "blend" has affinities with fullness. It is equally elusive and equally important; indeed, there is a closer connection, for blend is certainly better when tone is full. That quality also is relevant appears from the fact, on which the casting of operatic roles sometimes depends, that certain voices will not blend together. In general, blend is the ability

of a body of singers or players to form a homogeneous source of sound. Without it, music is dissolved, kaleidoscopically, into a succession of separate stimulations which, however exciting, do not produce a unified effect. If blend is good a listener has a sense of "remoteness" from the performance which enables him to perceive, and respond to, the work as a whole.

In this article, I have dealt only with musical terms—in an attempt to analyse tone and discover those qualities by which it can justly and consistently be criticized as being good or bad. In Part 2 of my article I shall describe the physical attributes of sound which correspond to these qualities, although there is no reason to suppose that the correspondence is a simple one—a single physical quantity for a single musical quality; we must expect rather a number of causes contributing to a single effect and *vice versa*.

INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.

11.36 materials: general BRITISH STANDARDS

British Standards Handbook. No. 3. 1953. (BSI. 30s.)

This collected volume of summaries replaces the 1950 edition and its 1951 addendum. To avoid making it too large, the electrical and gas standards are now omitted, but it includes a total of 268 summaries of Standards applicable to housing. This issue is completely re-arranged for easier reference. Essential for every office. Up to date to Aug., 1953.

13.109 materials: timber HARDWOODS

Commercial Hardwoods. Nicholas Clifford. (Pitman. 1953. 21s.)

100 timbers described and illustrated. Some "traditional" and some new types. Botanical identity, other names, general description, brief notes on seasoning, durability, working qualities and recommended uses. The notes on uses would have been more useful to architects if they had been rather longer. Useful bibliography and index. Each type illustrated by a photograph.

13.110 materials: timber WOOD VENEERS

Decorative Wood Veneers. J. L. Robertson. (RIBA Journal. Oct., 1953.)

Three-page illustrated article explaining simply the essentials of veneer cutting and how this and the selection of veneers affects design, especially design using decorative types. A very useful article written very much from the architect's point of view.

13.111 materials: timber TIMBER TESTING

The Testing of Timber. Papers by F. H. Armstrong, J. G. Sunley and W. J. Smith. (IAAS. 1953. 1s. 6d.)

These papers deal primarily with the technique of testing, but are an important review of the history and present-day knowledge of the subject. The papers are: (i) *Methods of Tests of Small Clear Specimens* by F. H. Armstrong; (ii) *The Testing of Structural Components and Structural Units* by J. G. Sunley; (iii) *Stress Grading as related to Mechanical Properties of Wood* by W. J. Smith.

16.104 materials: miscellaneous ASBESTOS-CEMENT

Asbestos-Cement Slates and Sheets. BS 690: 1953. (BSI. 1953. 4s.)

Revision of earlier BS. Main changes are omission of some types of slate and some sizes of sheet previously included to allow for variations in manufacture between different plants. A useful move towards proper co-ordination.

THE INDUSTRY

From the Industry this week, Brian Grant reports on a new continuous-burning fire, plastic-insulated electric cable, a simplified method of using plastic sheeting in the home, and a number of new booklets and catalogues dealing with the use of rubber in building, heating with solid fuel and sliding door gear.

RUBBER IN BUILDING

The British Rubber Development Board has just issued four new booklets in the series devoted to the use of rubber in building. The first deals with latex-cement compositions, whose characteristics include good resistance to abrasion, flexibility and adhesion. Various aggregates may be used, from sand where a cheap bulk filler is required, to cork or crushed granite chippings. The material can be used for floors, as a screed to take rubber or other tiles, as a mortar for use where dilute acids, alkalis or other liquids are encountered, for linings and renderings, and also for the surfacing of playgrounds and tennis courts.

The second booklet deals with acoustic sound absorption, sound insulation, anti-vibration mountings and fittings, and thermal insulation. It contains some useful tables and other data, particularly on the use of rubber in floating floors. The other two

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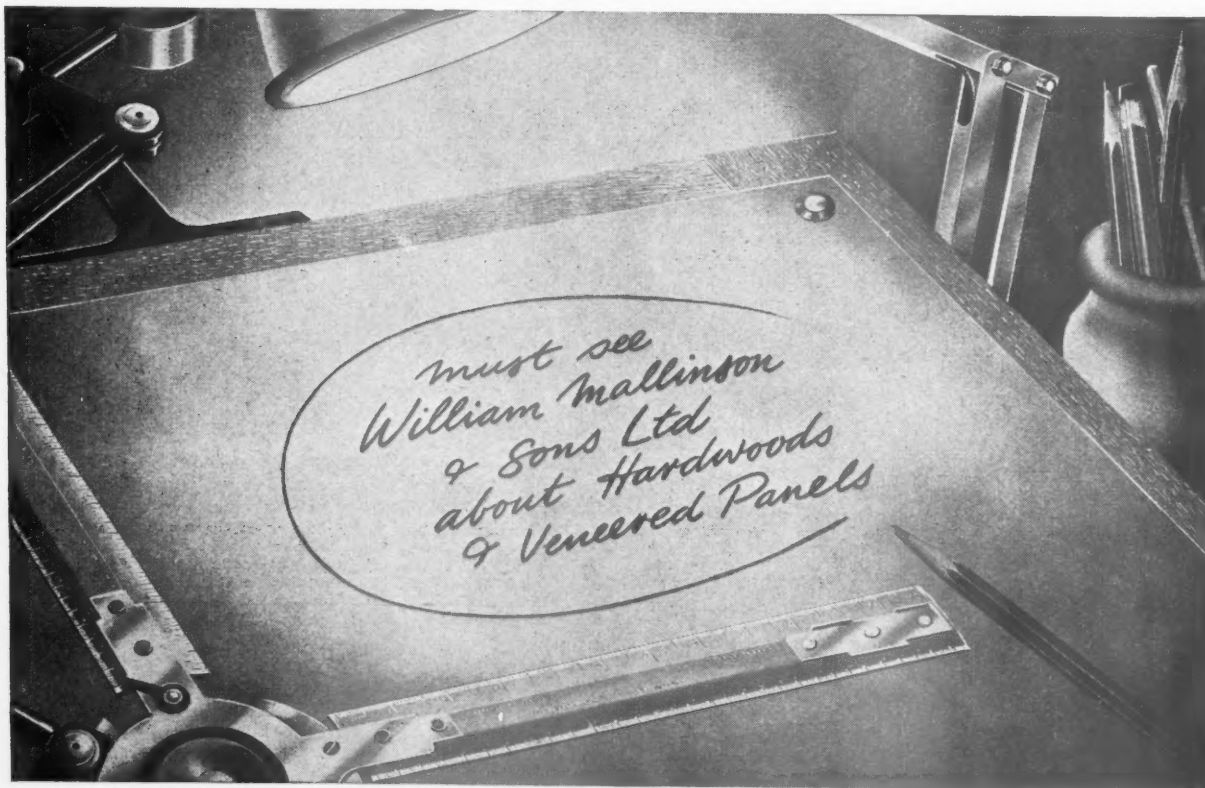
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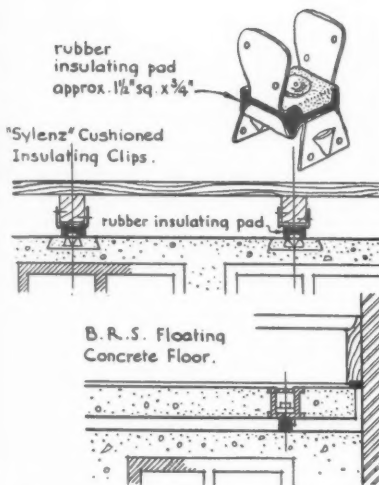
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The use of rubber for the sound insulation of floors.

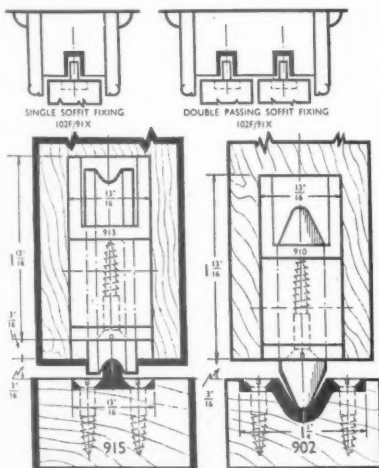
booklets deal with rubber-faced adhesives and with the different types of paint in which natural rubber is used.

All the booklets are well illustrated with photographs and drawings and they are agreeably factual; there is no "sales talk." The Association is, incidentally, sponsoring a competition for students of architecture or any of the allied arts for the design of furniture to be upholstered in latex foam. The prizes are £50, £25, £15 and £10, and there is no deposit payable for the conditions. Entries close on Feb. 1, next year. (The British Rubber Development Board, Market Buildings, Mark Lane, London, E.C.3.)

SLIDING DOOR GEAR

Two new sliding door gear catalogues have recently been published by P. C. Henderson, Ltd. They deal with hangers and sliding gear for doors, partitions, cupboards and showcases. The "Phantom" door hangers are particularly silent, having specially designed wheels in which hard rubber is sandwiched between steel discs running on ball bearings. With this system, the doors should not be heavier than 1 cwt.

Two forms of floor guide are standardised—a T-section in the foot of the door, run-



Two forms of floor guides for top-hung sliding doors; above, top guides for doors with bottom rollers. (From the new catalogues of P. C. Henderson Ltd.)

ning in a brass floor channel, and a T-section in the floor, standing up about $\frac{1}{2}$ in., with the channel in the door. Either method provides adequate draught exclusion and rigidity. For work where greater economy is necessary, the "Parlour" hangers are less silent, having fibre wheels, but are particularly suitable for light doors of $1\frac{1}{2}$ to $1\frac{1}{2}$ in. thickness. For doors up to 3 ft. wide, a hard fibre guide is screwed to the floor at the jamb, and works in an inverted channel in the foot of the door, the threshold thus being left clear. If two doors are used, parting from the middle there should be a floor guide across the threshold to give adequate rigidity where the doors meet.

The second leaflet deals with "Cabinet" and "Mansion" sliding rollers. In these fittings the doors are guided at the top and rollers are set in the foot of the door, running either on a raised rail or in a channel. Fixing is quite straightforward and should not lead to any difficulties on the site, while the manufacturers produce a series of questionnaire order forms with the aid of which it is easy to make sure that all the necessary fittings are supplied. (P. C. Henderson, Ltd., Tangent Works, Barking, Essex.)

PLASTIC INSULATED CABLE

A new leaflet from Aerialite, Ltd., describes the firm's "Ashathene" wiring systems, in which the conductors are insulated with polythene and sheathed with P.V.C. Polythene has a very much higher electrical resistance than the rubber usually used, and P.V.C. is non-inflammable and self-extinguishing when a flame that has been playing on it is removed. Both the insulation and sheathing are virtually inert, and they are resistant to most of the corrosive atmospheres normally found in industry. The cable can be buried in plastic without any ill effects, and for factory work it can be clipped to steel work or cleated along walls with the usual buckle clips. Sharp bends are easily made and conduit is not necessary except where damage may be caused by factory trucks or other moving objects.

An armoured version is also produced, made up with galvanised steel wire over the P.V.C. sheath, and a P.V.C. outer sheath over the wire. Two types of brass gland are produced for use with distribution boxes and switchgear, a simple split and pinch bolt type where full moisture sealing is not essential and a conical type with P.V.C. rings which gives a positive seal. The standard cable is made in all the usual sizes with 250-V. insulation and the armoured version in 250-V. and 660-V. grades. (Aerialite, Ltd., Castle Works, Stalybridge.)

USING SOLID FUELS

Warmer Homes With Solid Fuels is the title of a new Coal Utilisation Council Publication which contains a good deal of useful information. Most of it should be known to architects already, but it is quite useful to have the information in a readily accessible form with the various types of appliance shown, mostly with installation drawings, plus the appropriate Egerton Standards of insulation and some notes on planning. Inevitably, perhaps, the booklet starts with a consideration of the cost of heating with various fuels, and solid fuels come out best in terms of pence per useful therm. This is no doubt true, and no doubt solid fuels are best in the national fuel conserving interest, but there are other factors to be taken into account, such as how much you save by having small flues in gas fires or no flues at all for electricity, not to mention the value you put on your time if you don't like clearing ashes and clinkers. This is not intended as a reproach to the C.U.C., which

is a practical organization and maintains among other things, a technical service and a series of information centres in a number of towns outside London—all of them are listed in the booklet. (The Coal Utilisation Council, 3 Upper Belgrave Street, London, S.W.1.)

CONTINUOUS FIRES

To the existing list of continuous-burning fires must be added a modified version of the "Royal" fire; the interior is completely enclosed so that it requires no fixing whatever. It can readily be removed from one grate to another, and taken away if necessary when the tenant moves. The fire is produced in twelve shades of vitreous enamel; it fits 16-in. openings. (Castle Castings, Ltd., Clithero, Lancs.)

SELF-HELP

The fact that so many people now do their own decorating work and odd jobs about the house is underlined by a leaflet from Warerite, who are offering sheets of their plastic veneer, cemented to 4 mm. plywood, as a material for re-surfacing table tops, or for making cupboard and splash-backs. The material is not difficult to work, as it can be cut with a fine-tooth tenon saw or hack saw with a minimum of chipping, and the edge can be smoothed off with a sharp plane, a file or sand paper. Holes for screws or nails should be made with a twist drill, and the material is then used like any other type of panelling; it can be fixed with any of the usual abrasives. For edge trim the makers supply extruded aluminium beading with a coloured plastic insert to hide the heads of the fixing pins. The price of the sheets (retail) varies from 21s. for the 24-in. by 18-in. size to 56s. for 48-in. by 24-in. size; larger sizes are 8s. per sq. ft. (Warerite, Ltd., Ware, Herts.)

Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal 9, 11 and 13, Queen Anne's Gate, S.W.1

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Buildings Illustrated

House at Otham, near Maidstone, Kent. (Pages 749-753.) Architect: Brian Peake, F.R.I.B.A., M.S.I.A. General contractors: G. E. Wallis & Sons Ltd. Sub-contractors: electrical work, G. E. Wallis (Electrical) Ltd.; heating, Dulrae Ltd.; electric water heaters, Aidas Electric Ltd.; metal windows, Williams & Williams Ltd.; bricks, Medway Valley Brick Co.; bricks for fireplace, Stonehenge Brick Co.; stone, A. H. Hooker & Sons Ltd.; roofing, D. Anderson & Sons Ltd.; kitchen floor, Semtex Ltd.; sanitary fittings, W. N. Froy & Sons Ltd.; door furniture, A. J. Binns Ltd.; Venetian blinds, J. Avery & Co. Ltd.; double glazing, Pilkington Bros. Ltd.; sliding door gear, Silent Gliding Doors Ltd.; wallboard ceiling, Merchant Trading Co. Ltd.; marble flooring, Art Pavements & Decorations Ltd.; furniture, Hille of London Ltd.; Dunn's of Bromley; carpets, William Perring & Co. Ltd.; terrace chairs, Ernest Race Ltd.; fabrics, David Whitehead Ltd.; wallpapers, Arthur Sanderson & Sons Ltd.; indoor plants, West End Flower House; light fittings, Troughton & Young (Lighting) Ltd.; Courtney, Pope Ltd.; garden work, Arthur Charlton & Sons Ltd.; dining chairs painted bookcase fitting, bedhead in bedroom (designed by architect), F. W. Clifford Ltd.; dressing-table and cupboard in bedroom, kitchen-living room fitting, A. E. Franks.

Petrol Storage Depot in Pickering, Yorkshire, for Shell-Mex & BP Ltd. (Pages 754-756.) Architects: Boissevain & Osmond, DIP.Arch.M.S.I.A./A.R.I.B.A. Piping and installation layout: Head Office Engineering Division, Shell Mex & BP Ltd. Structural engineers: Ove Arup & Partners. Quantity surveyors: Wilson, Colbeck & Partners. General contractor: George Longden & Sons Ltd. Sub-contractors: damp courses, Messrs. Chandler; bricks, National Coal

Board (Whitlock Rustics); artificial stone, Hull Contract Co. Ltd.; special steel, Fleming Bros.; floor tiles, Marley Tile Co. Ltd.; Ruabon Quarries; waterproofing materials, roofing felt, Wm. Briggs & Sons Ltd.; glass, Bradford Glass Co. Ltd.; patent glazing, casements, Henry Hope & Sons Ltd.; central heating, Young, Austen & Young Ltd.; boilers, Beeston Boiler Co. Ltd.; electrical wiring, Troupe Curtis Ltd.; light fittings, Holophane Ltd.; Merchant Adventurers Ltd.; ventilation, Colt Ventilation Ltd.; plumbing, J. H. Shouksmith & Sons Ltd.; sanitary fittings, Adamsez Ltd.; door furniture, Adrian Stokes Ltd.; folding shutter gates, Bolton Gate Co. Ltd.; entrance gates and fencing, Boulton & Paul Ltd.; meters and kerbside units, The Wayne Tank & Pump Co. Ltd.; centrifugal pumps, Drysdale & Co. Ltd.; starters and control gear, Alan West & Co. Ltd.; telegauges, H. M. Hobson Ltd.; steel decking, Bettles & Son Ltd.; garage equipment, Brown Bros. Ltd.; motors, English Electric Co. Ltd.; cloak-room fittings, Wardles & Co. Ltd.; clocks, Gents & Co. Ltd.; vertical tanks, Whesoe Ltd.; pipework, Simmons & Hauker; loud speaker installation, Shipton & Co. Ltd.; pneumatic gates, Kelvin & Hughes, Ltd.; loading arms, The Emco Brass Manufacturing Co. Ltd. The centre photograph on page 756 is reproduced by courtesy of Shell-Mex & BP Ltd.

Terrace Housing at Baughurst, Hampshire, for the Kingsclere and Whitechurch R.D.C. (Pages 757-760.) Designer: Eric Chick of Highworth Processes Ltd. Consulting architects: Powell & Moya, A./A.R.I.B.A. Quantity surveyors: Davis, Belfield & Everest. General contractors: Holland & Hannen and Cubitts Ltd. Sub-contractors: facing bricks, The Cotswold Brick & Tile Co. Ltd.; composition tile flooring, London Flooring Co.; fabricated carpentry and joinery units, J. Long & Sons (Bath) Ltd.; doors, W. S. Fry & Sons Ltd.;

ironmongery, Kennedys (Bournemouth) Ltd.; sanitary fittings, John Bolding & Sons Ltd.; electrical installation, The Newbury Electrical Service; coke grates, W. N. Froy & Sons Ltd.

Announcements

An outstanding feature of the Silver Jubilee Building Exhibition was the record number of overseas representatives who visited Olympia during the fortnight from November 18 to December 2. Nearly 400 signatures representing visitors from 42 countries were obtained. Two years ago the figure was 225. The figures for attendances at the Silver Jubilee Building Exhibition showed an increase of 20 per cent. over those of 1951.

A. H. Brinkman, former manager of the Portsmouth branch of the Heating and Air Treatment Division of the Brightside Foundry and Engineering Co., Ltd., has taken up the branch managership at Liverpool. P. Baverstock, who lately held an executive post at the London Office of the company, has become branch manager at Portsmouth.

J. R. Harding, B.Sc.(Eng.), M.I.E.E., has been appointed assistant general manager of Pirelli-General Cable Works, Ltd. He joined Pirelli-General Cable Works Ltd., in 1925, and has been a district engineer, manager of overhead lines department, deputy sales manager for the Rubber Cable Division, and joint sales manager for the Paper Cable Division with R. J. Willoughby. He is a past chairman of the Hampshire Sub Centre, now the Southern Centre of the IEE.

Warwick Smith, not Wilson Smith, was the author of the article on competitions in Sweden, published on December 10.

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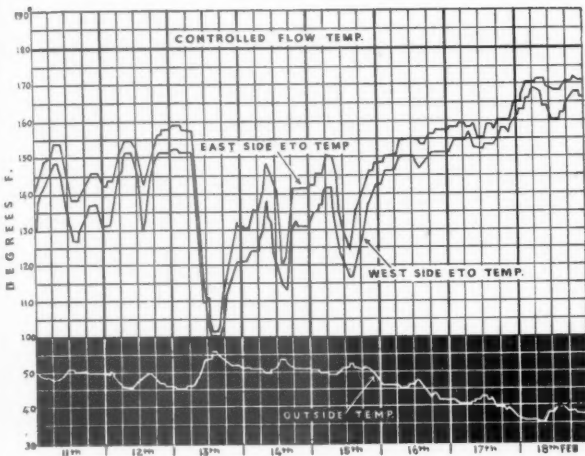
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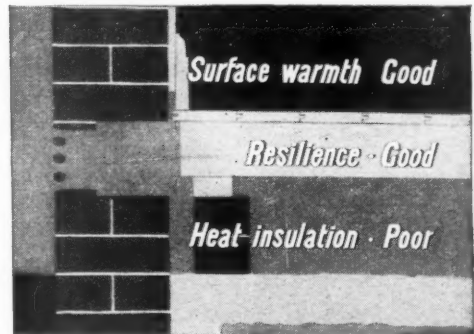
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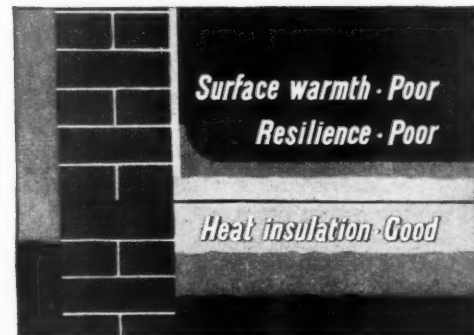


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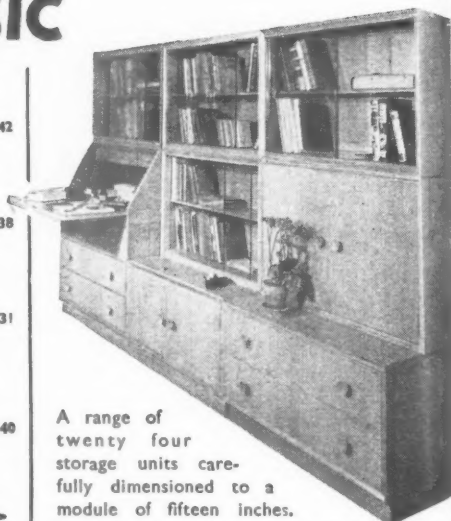
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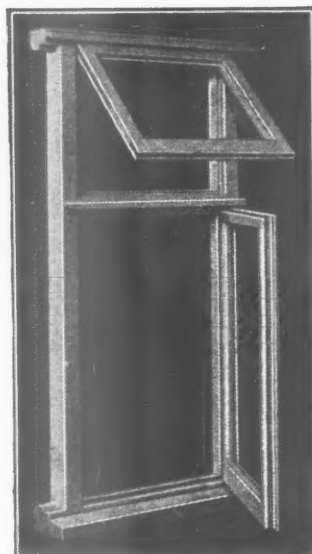


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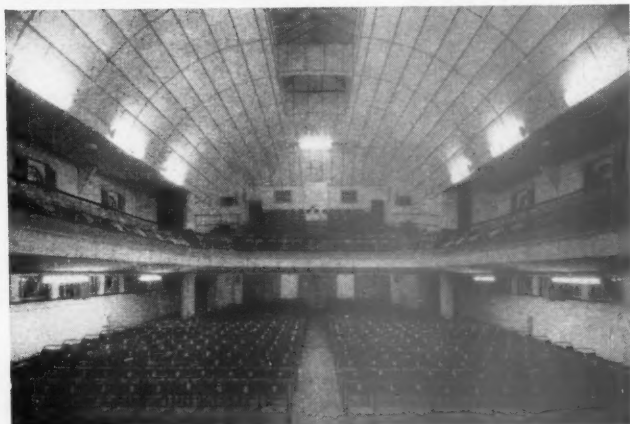


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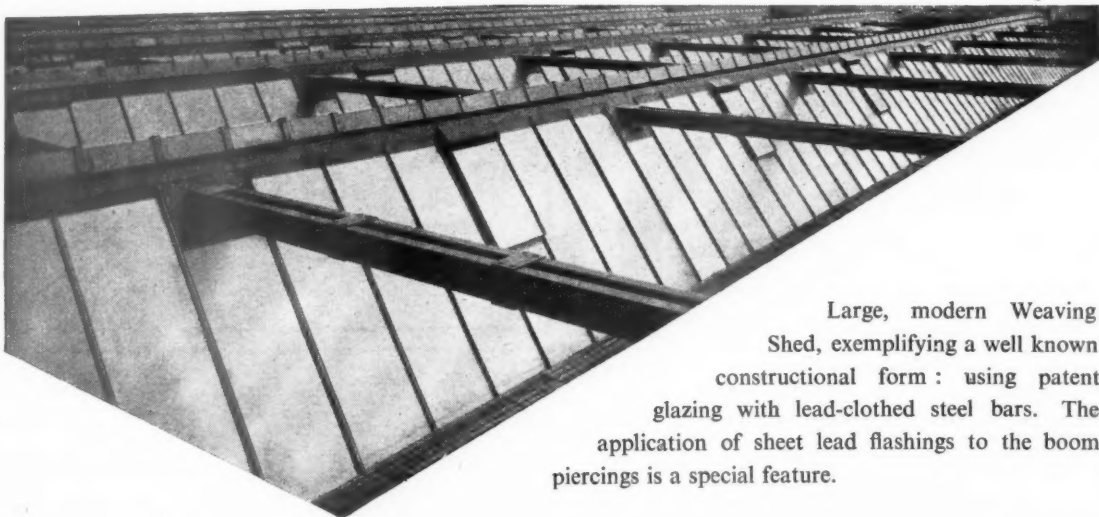
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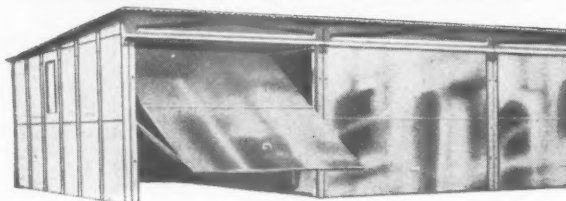
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9	72ft. 3in. x 16ft. 4in.	6ft. 3in.	£510-0-0
12	96ft. 3in. x 16ft. 4in.	6ft. 3in.	£675-0-0

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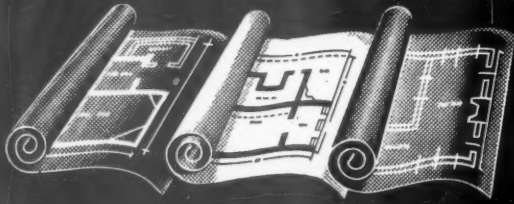
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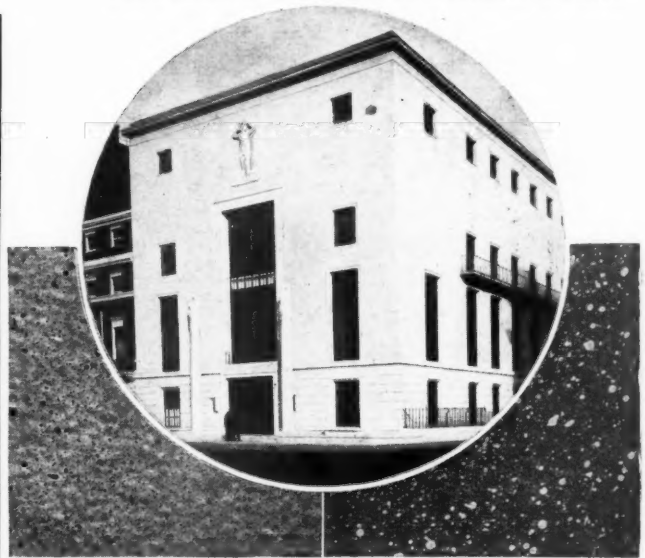
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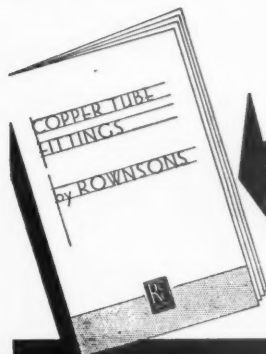
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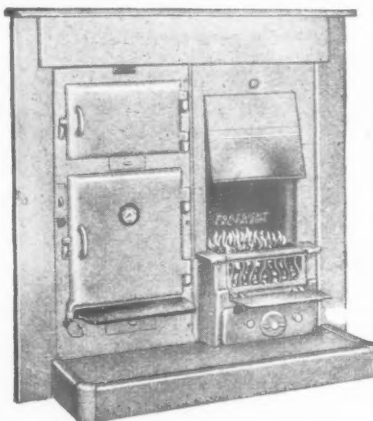
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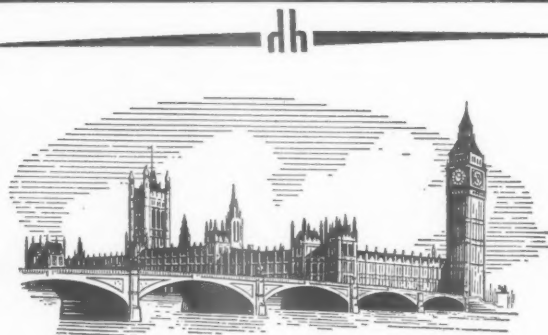


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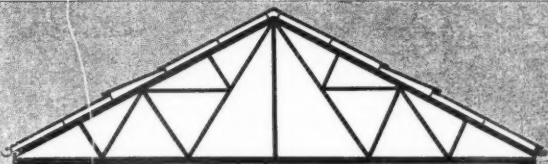
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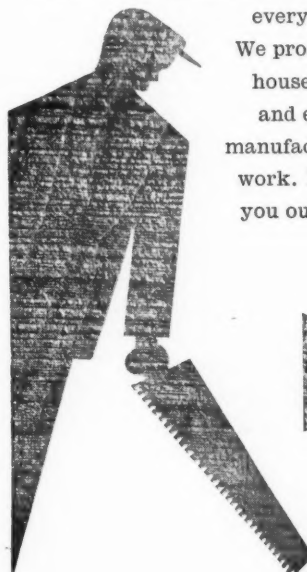
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CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

Public and Official Announcements

25s. per inch; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-54 inclusive or a woman aged 18-59 inclusive unless he or she or the employment, is exempted from the provisions of the Notification of Vacancies Order, 1952.

DEPARTMENT OF MUNICIPAL AFFAIRS & SUPPLY.

CITY OF ST. JOHN'S.

Applications are invited for the following appointments in the Joint Planning Office of the above two Authorities, at St. John's:—

TWO SENIOR PLANNING ASSISTANTS within a salary range in accordance with prevailing Canadian rates.

Duties include the preparation of plans for the development of communities throughout the province and a Development Plan for the City of St. John's and its environs. Both appointments offer scope for independent and responsible work to applicants with energy and initiative.

Applicants must have considerable practical planning experience, preferably in a Local Government Office, and should possess professional qualifications, A.M.T.P.I. and/or A.R.I.C.S.

Appointments are on contracts for 3 years in the first instance. Passage will be paid for the selected officers.

Please reply by Air Mail to the undersigned with details of age, experience, present salary and qualifications together with recent testimonials or references. Selected applicants will be interviewed in the United Kingdom. These appointments are open until 26th December, 1953.

STANLEY H. PICKETT, A.R.I.C.S.

City Planning Officer.

City Hall, St. John's,

Newfoundland.

1086

CITY OF BIRMINGHAM EDUCATION COMMITTEE.

Applications are invited for the following appointments to the Architect's Branch of the Education Department.

SENIOR ASSISTANT ARCHITECT. Salary: A.P.T. VIII (£760 × £25-£835).

Applicants must be registered and chartered architects, and must have had considerable experience in the design and erection of large buildings, preferably of schools, and must offer evidence of high ability and initiative in design.

ARCHITECTURAL ASSISTANTS. Salary: A.P.T. IV (£555-£600).

Applicants should have reached the R.I.B.A. Intermediate standard, and should be capable of preparing working details for major contracts.

CLERK OF WORKS. Salary: Miscellaneous, Grade VI (£525 × £15-£585).

Applicants should have a thorough technical training in building construction and materials, and experience of large building contracts.

TECHNICAL ASSISTANT. Salary: General Division (£130-£450, according to age).

Applicants should be good draughtsmen, with experience of the preparation of drawings in an architect's office.

Application forms, which may be obtained (stamped addressed envelope) from the undersigned, must be returned not later than 28th December, 1953.

E. L. RUSSELL,

Chief Education Officer.

General Purpose Branch, Education Dept.,

Margaret Street, Birmingham, 5.

1161

WARWICKSHIRE COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for an ARCHITECTURAL ASSISTANT, Grade A.P.T. II (£495-£540).

The successful candidate will be required to pass a medical examination, and the appointment is subject to the conditions of the Local Government Superannuation Act, 1937.

Application forms are obtainable from G. R. Barnsley, F.R.I.B.A., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS,

Clerk of the Council.

Shire Hall, Warwick.

1212

STEVENAGE DEVELOPMENT CORPORATION.

Applications are invited for post as JUNIOR ARCHITECT, on salary grade £475 × £25-£540, £540 × £25-£600, or £605 × £25-£645, according to experience.

Candidates should have completed a course at a recognised School of Architecture or have passed the Final Examination of the R.I.B.A.

Applications, stating age, qualifications and experience, and giving names of two referees, to be sent to the Chief Administrative Officer, Stevenage Development Corporation, Aston House near Stevenage, Herts., not later than Wednesday, 6th January, 1954.

NEWCASTLE REGIONAL HOSPITAL BOARD.

REGIONAL ARCHITECT'S DEPARTMENT.

ARCHITECTURAL ASSISTANTS.

Applications are invited for two permanent (superannuable) Architectural Assistant appointments on the Headquarters Staff of the Regional Architect in Newcastle. Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects.

The commencing salary within the grade £440 × £25(1) × £20(8) to £625 per annum, will depend upon the applicants' age and amount of practical experience since passing the Intermediate Examination but will not exceed £525.

To architectural assistants who wish to gain experience of hospital planning and construction the posts offer an excellent opportunity for doing good-class work of an interesting and widely varied nature in an architectural department which is being expanded to deal with a considerable work-programme.

Applicants must have had a sound architectural training and some practical experience in a practising architect's office is essential. Evening-study facilities for the R.I.B.A. Final Examination are available at King's College of the University of Durham in Newcastle.

The terms of appointment and conditions of service will be as set out in the Whitley Council Circulars P.T.B. 19 and 20 relating to professional and technical staffs of Regional Hospital Boards. The successful candidates will be required to pass a medical examination.

Applications giving all relevant particulars including training and experience, whether married, present appointment and salary, war service (if any), date available and the names of three referees are to be received by the undersigned not later than 31st December, 1953.

R. DOBBIN,

Secretary.

"Dunira," Osborne Road,

Newcastle upon Tyne, 2.

3rd December, 1953.

1185

PEAK PARK PLANNING BOARD.

Applications are invited for the following appointments under N.J.C. Service Conditions.

(i) **PLANNING ASSISTANT.** Salary A.P.T. Grade IV (£555-£600). Intermediate Town Planning Institute Examination or equivalent standard. Required to assist with development control.

(ii) **PLANNING DRAUGHTSMAN.** Salary A.P.T. Grade I (£465-£510). Previous experience of preparing development plan maps required.

Apply on forms obtainable together with further particulars from undersigned. Forms to be returned by 4th January, 1954. Canvassing disqualifies.

JOHN FOSTER,

Acting Planning Officer.

Bath Street, Bakewell, Derbyshire.

1173

MIDDLESBROUGH EDUCATION COMMITTEE.

Applications are invited for the following new appointments in the Education Offices (Education Architect): P. R. Middleton, Dipl.Arch., A.R.I.B.A.:—

(a) **SENIOR ASSISTANT ARCHITECT,** Grade VI.

(b) **ASSISTANT ARCHITECT,** Grade V.

(c) **JUNIOR DRAUGHTSWOMAN,** Mics., Grade III.

Housing accommodation may be available for post (a) as above.

Forms and particulars obtainable from the Director of Education, Education Offices, Woodlands Road, Middlesbrough, to whom completed forms should be returned not later than Wednesday, 30th December, 1953.

1171

BOROUGH OF GILLINGHAM.

APPOINTMENT OF SENIOR ASSISTANT ARCHITECT, GRADE A.P.T. VI (£670 PER ANNUM).

Applicants should be suitably qualified, and for preference have experience of school design and construction.

The Council are prepared to allocate housing accommodation if required by the successful applicant.

Forms of application may be obtained from the Borough Engineer, J. K. Urwin, A.M.I.C.E., M.I.Mun.E., Municipal Buildings, Gillingham, Kent. Applications, appropriately endorsed, must be received by the undersigned, accompanied by copies of not more than three recent testimonials, by not later than first post on Monday, 4th January, 1954.

Canvassing, directly or indirectly, will disqualify.

FRANK HILL,

Town Clerk.

Municipal Buildings, Gillingham, Kent.

3rd December, 1953.

1203

PEAK DISTRICT NATIONAL PARK.

PLANNING OFFICER required by PEAK PARK PLANNING BOARD.

Salary: £1,350 × £50-£1,600. Office at Bakewell. Will also be required to act as Area Planning Officer for Derbyshire County Council for part of north-west Derbyshire. Must be Member or Associate Member of Town Planning Institute; additional technical qualifications desirable; should have considerable practical experience in administration of a Planning Department, preferably including work in areas of high amenity. Application forms and further particulars from Clerk to the Board, County Offices, St. Mary's Gate, Derby. Closing date: Saturday, 9th January, 1954.

1214

ISLE OF ELY COUNTY COUNCIL.

Applications are invited for the under-mentioned appointments on the staff of the County Architect:—

(a) **ASSISTANT ARCHITECT,** Grade A.P.T., Va (£625-£685 p.a.).

(b) **JUNIOR ARCHITECTURAL ASSISTANT,** Grade Misc. I/II/III (£300-£440 p.a.).

(c) **QUANTITY SURVEYOR'S CLERK,** Grade Misc. III (£375-£440 p.a.).

The appointments are on the permanent staff, are subject to the provisions of the National Scheme of Conditions of Service, the Local Government Superannuation Act, and to the passing of a medical examination.

Applications must be made on forms to be obtained from the County Architect, County Hall, March, accompanied by copies of not less than two recent testimonials, and returned not later than the 31st December, 1953.

R. F. G. THURLOW,

Clerk of the County Council.

1211

MIDDLESEX COUNTY COUNCIL COUNTY PLANNING DEPT.

PRINCIPAL PLANNING ASSISTANT (A.P.T., VIII, £790, rising to £865 p.a.) required in the Headquarters Section.

Candidates should have full qualifications in planning and architecture, and good experience of town design. Must also be capable of controlling staff working on statistical and territorial analysis. Established, pensionable, subject to medical assessment and prescribed conditions. Application forms (stamped addressed envelope foolscap) from County Planning Officer, 10, Great George Street, S.W.1, by 4th January, 1954 (quoting M.806 A.J.). Canvassing disqualifies.

CLIFFORD RADCLIFFE,

Clerk of the County Council.

1193

BOROUGH OF NEWCASTLE-UNDER-LYME.

Applications are invited for the post of ARCHITECTURAL ASSISTANT, Grade IV (£555-£600).

Preference will be given to applicants who have passed the Intermediate Examination of the R.I.B.A. Experience in the design of new schools or municipal housing will be an advantage. A house will be provided if necessary.

Application forms and conditions of appointment may be obtained from the Borough Engineer and Surveyor, Lancaster Building, High Street, Newcastle, Staffs., and should be returned to him by Monday, 28th December, 1953.

C. J. MORTON,

Town Clerk.

District Bank House, Newcastle, Staffs.

1197

BRITISH ELECTRICITY AUTHORITY.

EAST MIDLANDS DIVISION.

Applications are invited for the following positions within the Division:—

CIVIL ENGINEERING DRAUGHTSMEN, Construction Department. (Vacancy No. 22/53.)

Candidates should have experience in design and detail of reinforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc., for general building construction drainage and sanitation schemes, associated with official and administrative buildings.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

ENGINEERING DRAUGHTSMEN (MECHANICAL), Construction Department. (Vacancy No. 44/53.)

Senior Draughtsmen are required in the Mechanical Section of the Construction Department at North Wilford Power Station. Candidates should have experience in one or more of the following:—

(i) Design and layout of Power Station equipment, including turbo-alternators, boiler plant, coal and ash plant, and general station auxiliaries.

(ii) H.P. and L.P. steam and feed pipework. Condensing plant and feed heating systems.

(iii) Conveyor plant, coal handling systems and material handling of station auxiliary equipment.

Salary and conditions of service will be in accordance with the National Joint Board Agreement. Grade 5 (£567-£671 per annum) and Grade 6 (£433-£567 per annum) of Schedule D, according to experience.

ENGINEERING DRAUGHTSMEN (ELECTRICAL), Construction Department. (Vacancy No. 61/53.)

Candidates should have experience in the preparation of layouts and diagrams for the installation of E.H.T. and L.T. switchgear, transformers, E.H.T. and L.T. cables; knowledge of protective gear systems would be an advantage.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

The above positions will be pensionable within the provisions of the British Electricity Authority and Area Boards Superannuation Scheme.

Applications should be submitted on the official form, which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham, and should be returned to the undersigned. Please quote Vacancy Number.

L. F. JEFFREY,

Divisional Controller.

1199

BOROUGH OF OLDBURY. BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT. AMENDED ADVERTISEMENT.

Applications are invited for the following appointments in the Architects Section of the Borough Surveyor's Department:

(a) **SENIOR QUANTITY SURVEYOR**, Grade A.P.T. VII (£710/25/785).
(b) **ASSISTANT QUANTITY SURVEYOR**, Grade A.P.T. V (£595/15/15/20/645).
Salary will be paid within the above grades in accordance with the experience and qualifications of the successful candidates.

The Corporation's building programme comprises mixed development of houses, maisonettes and flats, shopping centres, the development of a central clearance area and general building works. Candidates for appointment (a) should be qualified quantity surveyors with a thorough knowledge of local government building contract procedure, the preparation of bills of quantities and settlement of accounts.

For appointment (b) applicants should preferably be qualified quantity surveyors with practical experience in the preparation of bills of quantities.

The appointment will be superannuable, subject to the National Conditions of Service and to the selected candidate passing a medical examination.

Applications, giving particulars of age, qualifications and experience, with the names of two referees, should be delivered to the undersigned, not later than Thursday, 31st December, 1953. Housing accommodation will be available to married applicants if this is required.

KENNETH PEARCE,

Town Clerk.

Municipal Buildings, Oldbury.

30th November, 1953.

1152

NORTH EAST METROPOLITAN REGIONAL HOSPITAL BOARD.

REGIONAL ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:

SENIOR ASSISTANT ARCHITECT (£875 × £30-£1,025, plus London Weighting £40-£50). Applicants must be registered Architects competent in architectural design and construction. The applicant selected will be responsible for the control of a section of the architectural staff. Experience in hospital work is desirable but is not an essential qualification.

ARCHITECTURAL ASSISTANT (£440 (at age 21 or over) × £25 (1) × £20 (8)-£625, plus London Weighting £20-£30). Applicants must have passed the Intermediate examination of the R.I.B.A. (or equivalent), and be able to make working drawings of new works, surveys, and take levels.

DRAUGHTSMAN £360 (at age 21 or over) × £20 (8) and £25-£45, plus London Weighting £20-£30). Applicants must have had suitable architectural training for at least three years and be capable of making details of building work.

ASSISTANT QUANTITY SURVEYOR (£600 × £25 (7) and £30 (3)-£865, plus London Weighting £20-£40). Candidates must be Corporate Members of the R.I.C.S. having qualified in Quantities (Sub-Div III) or, under certain circumstances, Associate Members of the Institute of Quantity Surveyors. The duties will comprise taking off, billing and abstracting, preparation of preliminary estimates, site measurements and valuation of works in progress and the preparation of final accounts. Experience in works of alteration will be an advantage.

QUANTITY SURVEYOR'S ASSISTANT £440 (at age 21 or over) × £25 (1) × £20 (8)-£625, plus London Weighting £20-£30). Candidates must have passed the Intermediate examination of the R.I.C.S. in Quantities (Sub-Div. III) (or equivalent). The duties will comprise mainly "working" and assisting generally in the preparation of final accounts.

PERMANENT CLERK OF WORKS (£545 × £20-£645, plus London Weighting £20-£30). Candidates must have served apprenticeship as craftsmen and have three years' experience as Foreman of Trade or Clerk of Works, or have equivalent training and experience. Experience in specification writing for small jobs of alteration, etc., and estimating for same will be an advantage. State if car driver.

Applications giving age, qualifications and experience, together with the names of two referees, should be sent to The Secretary, North East Metropolitan Regional Hospital Board, 11a, Portland Place, W.1, within 14 days.

1225

DERBYSHIRE COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

Applications invited for appointment of ARCHITECTS (permanent staff) on A.P.T. Grades V and IV. Duties in connection with erection of Schools. National Joint Council's scheme of conditions and pensionable post.

Application forms from F. Hamer Crossley, County Architect, St. Mary's Gate, Derby, by 31st December, 1953.

1199

BOROUGH OF DAGENHAM. ARCHITECTURAL ASSISTANT.

Applications are invited for the above-mentioned post. Salary grade A.P.T. IV (£555 to £650 per annum, plus London weighting, i.e., £30 per annum at age 26 and over). Applicants must hold the Intermediate A.R.I.B.A. or similar qualification. Form of application, together with further details of the post, obtainable from the Borough Engineer and Surveyor. Closing date: 22nd December, 1953. Housing accommodation may be made available.

KEITH LAUDER,

Town Clerk.

Civic Centre, Dagenham.

1190

MONMOUTHSHIRE COUNTY COUNCIL. APPOINTMENT OF ARCHITECTURAL STAFF.

Applications are invited for the following posts in the County Architect's Department under the N.J.C. Conditions:

THREE ARCHITECTURAL ASSISTANTS.

Salary: £710-£785, A.P.T. VII.

THREE ARCHITECTURAL ASSISTANTS.

Salary: £595-£645, A.P.T. V.

Forms of application, particulars of posts and conditions of service, can be obtained from the undersigned.

Applications, together with copies of three testimonials, must be forwarded to the County Architect, Queen's Hill, Newport, Mon., not later than Saturday, 2nd January, 1954.

VERNON LAWRENCE,

Clerk of the Council.

County Hall, Newport, Mon.

1188

COUNTY OF CORNWALL. APPOINTMENT OF ASSISTANT PLANNING OFFICER (ARCHITECT).

Applications are invited for this appointment, in the County Planning Department Headquarters, Truro. Salary will be Grade A.P.T. VIII (£760-£835), with initial salary according to qualifications and experience. Candidates must be Associates of the Royal Institute of British Architects, and preference will be given to those who are also Associate Members of the Town Planning Institute.

The successful candidate will be required to provide a motor car for official travelling, for which a mileage allowance will be paid. The customary service conditions of the Local Government Service will apply.

Full details of the appointment can be obtained from the County Planning Officer, to whom applications, together with the names and addresses of three referees, should be addressed, at the County Hall, Truro, not later than the 1st January, 1954.

E. T. VERGER,

Clerk of the County Council.

County Hall, Truro.

5th December, 1953.

1202

COUNTY BOROUGH OF BOOTLE. SCHOOL BUILDING PROGRAMME.

Applications are invited for the following appointments:

(1) **ASSISTANT ARCHITECT**, A.P.T., VI

(£670-£735 p.a.).

(2) **ASSISTANT ARCHITECT**, A.P.T., V

(£595-£645 p.a.).

(3) **ASSISTANT ARCHITECT**, A.P.T., IV

(£555-£600 p.a.).

(4) **ARCHITECTURAL ASSISTANT**, A.P.T., III

(£525-£570 p.a.).

Appointments (2) and (3) are of a temporary nature for a minimum period of three years, and (4) is on the permanent establishment.

Application forms are obtainable from the Borough Surveyor, Town Hall, Bootle, to whom they should be returned by Friday, 1st January, 1954.

HAROLD PARTINGTON,

Town Clerk.

1200

BIRMINGHAM REGIONAL HOSPITAL BOARD.

Applications invited for following appointments in Architect's Department:

(1) **PRINCIPAL ASSISTANT ARCHITECT**.

£975 × £40-£1,175 p.a.

Applicants must be Registered Architects, A.F.R.I.B.A., with some knowledge of hospital design. Successful candidate responsible under Regional Architect for Mental Health programme and in conjunction with private architects for certain major developments.

(2) **SENIOR ASSISTANT ARCHITECT**. £875 × £30-£1,025 p.a.

Applicants must be Registered Architects, with Final R.I.B.A. or diploma in architecture. Experience of hospital planning and construction an advantage. Ability to control drawing office staff and sympathetic approach to contemporary design essential.

(3) **ASSISTANT ARCHITECT**. £600 × £25 (7) × £30 (3)-£865 p.a., according to age and experience.

Applicants must be Registered Architects with Final R.I.B.A. or diploma in architecture. Experience of hospital planning and construction an advantage; sound knowledge of specifications essential. Flair for contemporary design, including new methods of construction and interior decoration desirable.

Appointments superannuable. Write, naming three referees, to Secretary, 10, Augustus Road, Birmingham, 15, by 31st December, 1953.

1213

COUNTY BOROUGH OF BLACKPOOL. APPLICATIONS (to be received by 13th January, 1954) are invited for the following posts in the Borough Surveyor's Department:

(a) **SENIOR ARCHITECTURAL ASSISTANT**.

Grade A.P.T. VII/VIII (£710-£835).

(b) **SENIOR ARCHITECTURAL ASSISTANT**.

Grade A.P.T. VI (£670-£735).

(c) **STOREKEEPER**. Grade Misc., III

(£375-£440).

The grade and starting salary for post (a) will be in accordance with the successful candidate's experience and qualifications. Form of application and further particulars obtainable from the Borough Surveyor (Arthur Hamilton, A.R.I.B.A.), Municipal Buildings, Blackpool.

The Council are unable to give any assistance in the provisions of housing accommodation.

TREVOR T. JONES,

Town Clerk.

1228

BOROUGH OF BUXTON. APPOINTMENT OF TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment at a salary in accordance with Grade III or IV of the A.P.T. Division of the N.J.C. scales, according to qualifications.

Applicants will be required to assist the Senior Architectural Assistant in the Surveyor's Department in the Council's housing programme, general maintenance work, housing and public buildings.

Candidates must state age and experience, qualifications, and any relevant details.

Applications, accompanied by copies of two recent testimonials, should reach the undersigned not later than 28th December, 1953.

A. C. W. RYLAND, A.M.I.C.E.,

Borough Engineer.

Town Hall, Buxton.

8th December, 1953.

1210

GENERAL ARCHITECTURAL ASSISTANT.

Salary: £525-£570. N.J.C. Service Conditions.

Post pensionable, subject to medical examination. Applicants must disclose whether related to any member or senior officer of Council. Applications, giving age and experience, and with copies of two recent testimonials, to be sent to Borough Surveyor, Town Hall, Stockport, by 2nd January, 1954.

1201

CITY OF SALFORD. TECHNICAL STAFF.

Applications are invited for the under-mentioned appointments on the permanent establishment of the City Engineer and Surveyor's Department:

(a) **ARCHITECTURAL ASSISTANT**, A.P.T., Grade IV (£555 to £600).

(b) **JUNIOR ARCHITECTURAL ASSISTANT**, A.P.T. Grade II to III, according to qualifications and experience (£495 to £540) (£525 to £570).

The appointments are pensionable and subject to the National Scheme of Conditions of Service and to the passing of a medical examination.

Applicants for position (a) should have passed the Intermediate Examination of the R.I.B.A. or have an equivalent qualification and have worked in an Architectural Office for two years.

Facilities will be given to Juniors to obtain professional qualifications.

Applications, stating age, qualifications and experience, and accompanied by copies of two recent testimonials, are to be addressed to the City Engineer and Surveyor, Town Hall, Salford, 3, in envelopes endorsed for the appointment for which application is made, quoting Ref. "A.J." so as to be received not later than Friday, 8th January, 1954.

H. H. TOMSON,

Town Clerk.

1215

COVENTRY CORPORATION require Registered Architects for Housing projects A.P.T. V (£595-£645 per annum) plus £26 per annum (men) or £19 10s. per annum (women) local award in approved circumstances. Application forms and conditions from City Architect, Bull Yard, Coventry, to be returned by 4th January.

1226

COUNTY BOROUGH OF GREAT YARMOUTH. EDUCATION COMMITTEE.

SCHOOLS ARCHITECT'S DEPARTMENT.

Applications are invited from Associate Members of the Royal Institute of British Architects for the appointment of **PRINCIPAL ASSISTANT ARCHITECT** on the permanent staff, Salary Grade VIII (£760-£835).

Candidates should have a knowledge of modern school design and construction. The person appointed will be in charge of the Drawing Office, and will be required to act as Deputy to the Schools Architect.

Further particulars and forms are to be obtained from The Schools Architect, 22, Euston Road, Great Yarmouth, to whom they should be returned by Tuesday, 12th January, 1954.

W. G. FARROW,

Chief Education Officer.

1227

CITY OF CAMBRIDGE. APPOINTMENT OF ARCHITECTURAL ASSISTANTS FOR SECONDARY MODERN SCHOOL DESIGN.

Applications are invited for the following appointments:

(a) **SENIOR ASSISTANT ARCHITECT**.

Salary: £710-£785 (Grade A.P.T. VII).

(b) **ARCHITECTURAL ASSISTANT**. Salary:

£595-£645 (Grade A.P.T. V).

Candidates for appointment:

(a) Must be Registered Architects, with good general knowledge in the design and construction of Education Buildings, and preferably with experience of Secondary Modern Schools.

(b) Should have passed the Intermediate Examination of the R.I.B.A., and have had suitable experience, preferably of Secondary Modern Schools.

Both appointments will be subject to the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass medical examinations. The posts are terminable by one month's notice on either side.

No housing accommodation can be provided by the Council for either of these appointments.

Forms of application may be obtained from T. V. Burrows, City Surveyor, Guildhall, Cambridge, and should be returned to him by Tuesday, 29th December, 1953.

ALAN H. I. SWIFT,

Town Clerk.

1204

The Guildhall, Cambridge.

**COUNTY BOROUGH OF BARROW-IN-FURNESS.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.**

Applications are invited for the permanent post of **SENIOR ARCHITECT**, Grade VII (£4710-£785 p.a.). The commencing salary will be fixed according to the experience of the successful applicant. Candidates must be Associates of the Royal Institute of British Architects.

It is possible that the Council will allocate a Corporation house for the post subject to the merits of the case being satisfactory to the interviewing Committee.

Further details and forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Barrow-in-Furness, to whom applications must be returned not later than Monday, 4th January, 1954.

LAWRENCE ALLEN,
Town Clerk.
1217

**COUNTY BOROUGH OF DONCASTER.
BOROUGH ARCHITECT'S DEPARTMENT.**

Applications are invited for the appointment of an **ARCHITECTURAL ASSISTANT**, Grade A.P.T., Va (£625 × £20 × £20 × £20-£685). Applicants must be Associates R.I.B.A., and have had good experience in the preparation of sketch schemes and working drawings. Experience in school design will be an advantage.

The appointment will be subject to one month's notice on either side and to the National Joint Council's Scheme of Conditions of Service, and the terms of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination.

Forms of application can be obtained from the Borough Architect, L. J. Tucker, A.R.I.B.A., F.I.H.S., 15, South Parade, Doncaster, and must be returned to the undersigned not later than 12 noon Friday, the 1st January 1954.

Canvassing, directly or indirectly, will be a disqualification.

H. R. WORMALD,
Town Clerk.
1209

1, Priory Place, Doncaster.

Tenders for Contracts

4 lines or under, 7s. 6d.; each additional line, 2s.
**COUNTY BOROUGH OF SOUTHEAST-ON-SEA.
KITCHEN EQUIPMENT.**

Tenders are invited for the supply of kitchen equipment for Fairway Junior School.

General Conditions may be inspected, and copies of Form of Tender, Plan and Specification obtained on and after Monday, 14th December, 1953, on application to the Borough Architect, 30, Alexandra Street, Southend-on-Sea, on payment of a deposit of £2, which will be refunded on receipt of a bona fide tender or the return of all loaned documents.

Sealed tenders, addressed to the undersigned and endorsed "Fairway Junior School—Kitchen Equipment," are to be delivered to this office before 12 noon on Monday, 28th December, 1953.

No tender will be received except in the special envelope provided, which shall not bear any name or mark indicating the sender.

The Corporation do not bind themselves to accept the lowest or any tender.

ARCHIBALD GLEN, Town Clerk.
1198

Architectural Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she is, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

ASSISTANT required for large general Architectural Practice with offices in Maidenhead. Some experience in specification writing essential. Salary £300 to £500, according to experience. Box 953.

VACANCY arises for Articled Pupil (Architectural or Building Surveying) in City firm. Box 946b.

A SENIOR ARCHITECTURAL ASSISTANT required, full experience in preparation of Working Drawings, Details, and supervision of office and Industrial Buildings in the London Area. Good knowledge of construction and design essential. Apply in writing giving full particulars of qualifications, age, experience and salary required to Box 9229.

ARCHITECTURAL DRAUGHTSMEN, up to Inter R.I.B.A. standard, required; Westminster area. Write, stating experience and salary, to Box 1116.

ARCHITECTURAL DRAUGHTSMAN required, a senior, for interesting and varied practice in the Home Counties. Write, giving full particulars and salary required, to Box 1153.

JUNIOR ARCHITECTURAL DRAUGHTSMAN required in Maidenhead office. Ample scope for advancement for keen applicant. Salary: £400-£800, or according to abilities. Write, with full details, stating salary required, to Box 1134.

ASSISTANT required in Architects' office, with extensive and varied practice. Apply, with full particulars of experience and salary required, to Box 1135.

ARCHITECTURAL ASSISTANT, experienced senior, required immediately. 5-day week. Write to Messrs. J. M. Sheppard & Partners, 38, Bedford Place, W.C.1, giving particulars of age, qualifications, experience, and salary required. 1139

ARCHITECTURAL ASSISTANT wanted immediately in small office at Potters Bar, Middx., for work largely on housing. Quick, neat draughtsman required, about intermediate stage, with office experience. Brief details of age, experience and salary, to Box 1145.

THE GRENFELL BAINES GROUP—
ARCHITECTURAL ASSISTANTS required in Preston and Rugby offices; at least 4 years' office experience. Reply, stating particulars of experience, and salary required. For Preston, to Grenfell Baines & Hargreaves, 12, Guildhall Street, Preston; for Rugby, to Douglas J. Oliver, 10, St. Matthew Street, Rugby. 1137

JUNIOR ARCHITECTURAL ASSISTANTS and **DRAUGHTSMEN** required for interesting work in the London office of Multiple Retail Co. Experienced in preparation of working drawings, detailing and surveys. Salaries up to £450. Staff canteen, 5-day week. Write, giving experience, age, salary required, to Chief Architect, Box 1147.

ARCHITECTURAL TRAVELLER required for South Coast by high class old established Paint Manufacturers. Write stating age, experience and salary required to Box 1229.

ARTICLED PUPIL or JUNIOR required by Quantity Surveyors. No premium. Age 15-18, with G.C.E. or equivalent for R.I.C.S. Must be keen, accurate at figures. Excellent prospects to learn the profession. Reply in writing, stating age, education, etc., George Lewis & Son, 49, Sheepcote Road, Harrow, Middlesex. 1222

ASSISTANTS, Inter./Final stage, required in private practice in Nottingham. Good draughtsmanship and office experience essential. Contemporary work. Salary according to ability. Box 1224.

ARCHITECTURAL ASSISTANT of R.I.B.A. Intermediate standard, required for general practice in the Midlands. Please state age, experience and salary required. Box 1220.

ARCHITECT ASSISTANTS required by leading Practitioner in Belfast. Good salaries and prospects to suitably qualified men. Post-Graduate and senior grades. Reply to Box 1219.

ARCHITECTURAL DRAUGHTSMAN required. Preferably Intermediate standard or higher, with experience of industrial work. Reply, giving full details of age, experience, and salary desired, to Box 1223.

EXPERIENCED ARCHITECTURAL ASSISTANTS required. Inter-Final standard. Write full particulars and salary required, Lanchester & Lodge, 10, Woburn Square, W.C.1. 1205

YOUNG ASSISTANT wanted. Commonsense and knowledge of construction preferred to "outlook" traditional or contemporary. Box 1191.

ARCHITECTURAL ASSISTANT, of Intermediate standard, with practical experience, required for office with varied practice. Applicant will be required to prepare all scale working drawings from sketch plan stage. Salary according to experience. Apply in own handwriting, stating full details of experience, to Welch & Lander, 38, Gloucester Place, W.1. 1207

ONE SENIOR and ONE JUNIOR ARCHITECTURAL ASSISTANT required, Croydon office. Good draughtsman, previous experience essential. The former capable of taking charge of small drawing office. Full details and salary required. Box 1196.

JUNIOR ASSISTANT required, to work in North of England. Write full particulars and salary required, Lanchester & Lodge, 10, Woburn Square, W.C.1. 1206

EXPERIENCED ARCHITECTURAL ASSISTANT required by London firm doing schools and housing. Write, stating training, experience, and salary required. Box 1192.

ARCHITECTURAL ASSISTANT, of Intermediate standard, required in W.C.2 district. Write, stating age, experience, and salary required, to Box 1194.

APPOINTMENT OF WORKS DEPARTMENT MANAGER, DERBY CO-OPERATIVE PRO-VIDENT SOCIETY, LTD.

APPLICATIONS are invited from suitably qualified and experienced persons for the above position. The Department at present comprises the following trades: Building; Joinery; Plumbing; Painting; Sheet Metal; Wheelwrights; Blacksmiths; Coachpainting; Funeral Service and Monumental, the total staff numbering 305. All classes of repair and maintenance work, also new buildings, undertaken for the Society and members. Total membership 100,000. N.U.C.O. scale; Superannuation Fund.

Applications, stating age, qualifications, present position, and full details of experience, to be forwarded to the Secretary, Albion Street, Derby. 1195

Architectural Appointments Wanted

R.I.B.A., Dip.Arch. (36) seeks senior position in contemporary London office where there is scope for technical and constructional knowledge. Box 9809.

R.I.B.A. (37), Dip.Arch. (Polytechnic), 10 years' experience good general practice, London and country, seeks post in Edinburgh office. Salary by arrangement. Box 820.

R.I.B.A. (35), with good general experience, and car driver, desires position in well-established country practice, preferably in South or West Country. Some capital available for partnership later if mutually satisfied. Box 824.

Other Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she is, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

TWO SENIOR DRAUGHTSMEN required—Reema Construction Ltd., Designers, Manufacturers and Builders in the "Reema" pre-cast concrete system of construction. Experienced in the detailing of buildings essential. Location: Salisbury, Wilts. Salary up to £550. Apply Milford Manor, Salisbury. 1231

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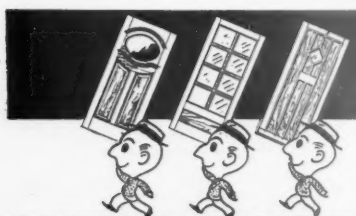
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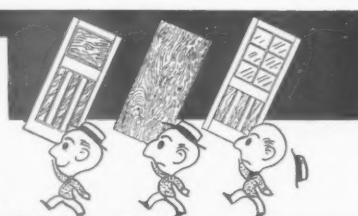
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request. 7020

FORTHCOMING EXAMINATIONS.

The Incorporated Association of Architects and
Surveyors will hold the following examinations
during the week beginning 3rd May, 1954.

Architects' Section:
Intermediate grade.
Final grade (Parts I and II).
Quantity Surveyors' Section:
Intermediate grade.
Final grade (Parts I and II).
Direct Final grade.
Building Surveyors' Section (Municipal and
Non-Municipal):
Intermediate grade.
Final grade (Parts I and II).
Direct Final grade.
Land Surveyors' Section:
Intermediate grade.
Final grade.
Direct Final grade.
Fire Surveyors' Section:
Direct Associate grade (Parts I and II).
The examinations will be held in London, and
at selected provincial centres. Applications from
candidates for permission to sit, made on the
prescribed form, must be received not later than
Monday, 8th February, 1954.
Full information on application to the General
Secretary, I.A.A.S., 75, Eaton Place, London,
S.W.1. 1187

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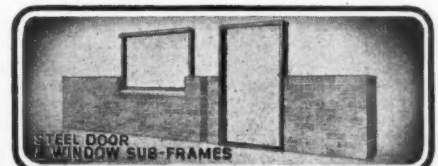
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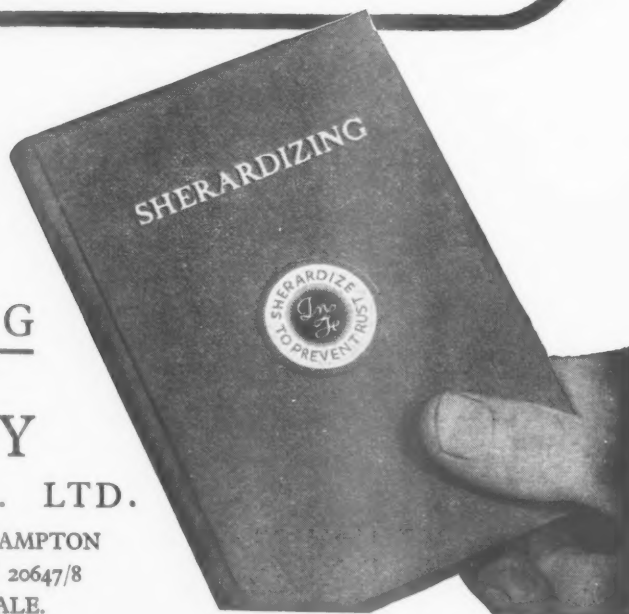
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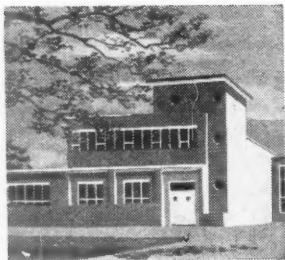
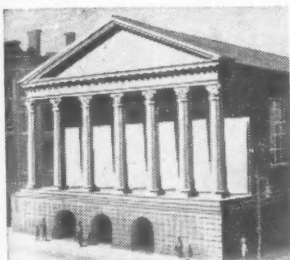
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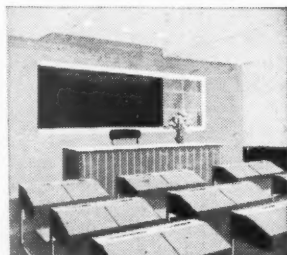
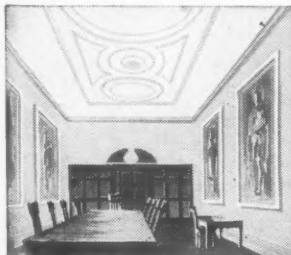
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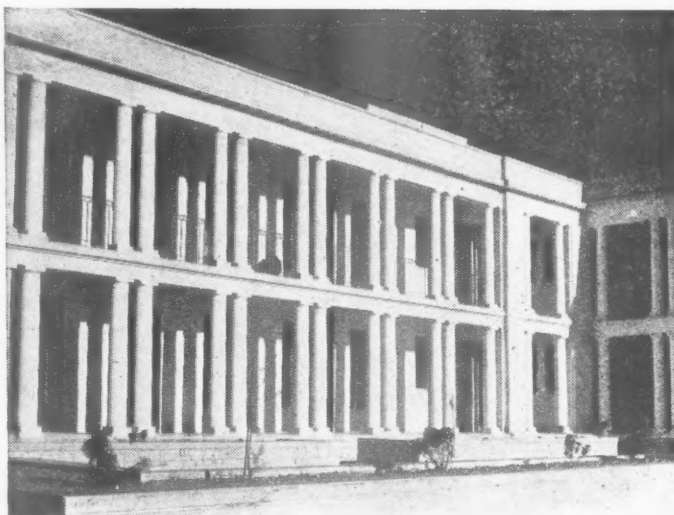
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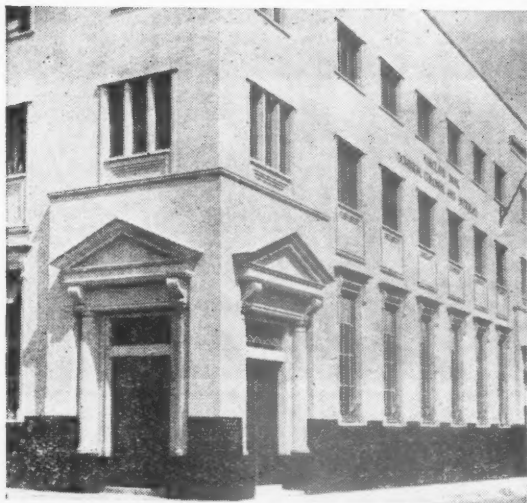


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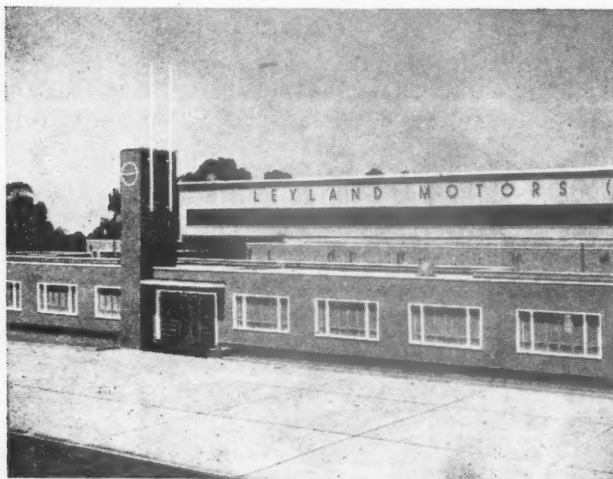


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